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PC GAMER

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"NEW, EXCITING, AND READY TO KICK OFF LOADS OF ARGUMENTS"

This month I put together my first PC Gamer Top 100 – an honour! After weeks of tense video calls and fevered writing, we've produced a list that feels truly refreshed for 2020 – new, exciting, and ready to kick off arguments all across the globe.

I hope you take it as it's intended: as a fantastic source of recommendations for games we think you'll enjoy, and a celebration of the industry's best work. But it's also a great window into where we're at as a team – it reflects the things we love about PC gaming, and the experiences that inform our coverage.

Sorry your favourite game isn't number one.

ROBIN VALENTINE
Specialist in
Enormous features

Twitter
@robinlvalentine

This month
Ranked everything in his flat. The top 100 unpainted Warhammer models; the 50 best plastic bags; 12 Odd Socks That Will Change Your Life.

ROBIN VALENTINE
PRINT EDITOR
robin.valentine@futurenet.com

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The PC Gamer team

PHIL SAVAGE
Specialist in
Cat herding

Twitter
@Octaeder

This month
Had the job of trying to steer our arguing into actually putting games on the list. Pity him.

TIM CLARK
Specialist in
Slack arguments

Twitter
@timothydclark

This month
Kept *Destiny 2* and *Hearthstone* on the list, and only had to threaten two firings to do it.

TOM SENIOR
Specialist in
Making history

Twitter
@PCGLudo

This month
Secured a timeless legacy for his nation by showing everyone the wonder of his Great Blue Hole.

ANDY KELLY
Specialist in
Cybering

Twitter
@ultrabrilliant

This month
Got to play that game that messes with Keanu Reeves' respiratory faculties.

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DEATH STRANDING
Hideo Kojima's post-Konami epic comes to PC – and already it feels right at home.

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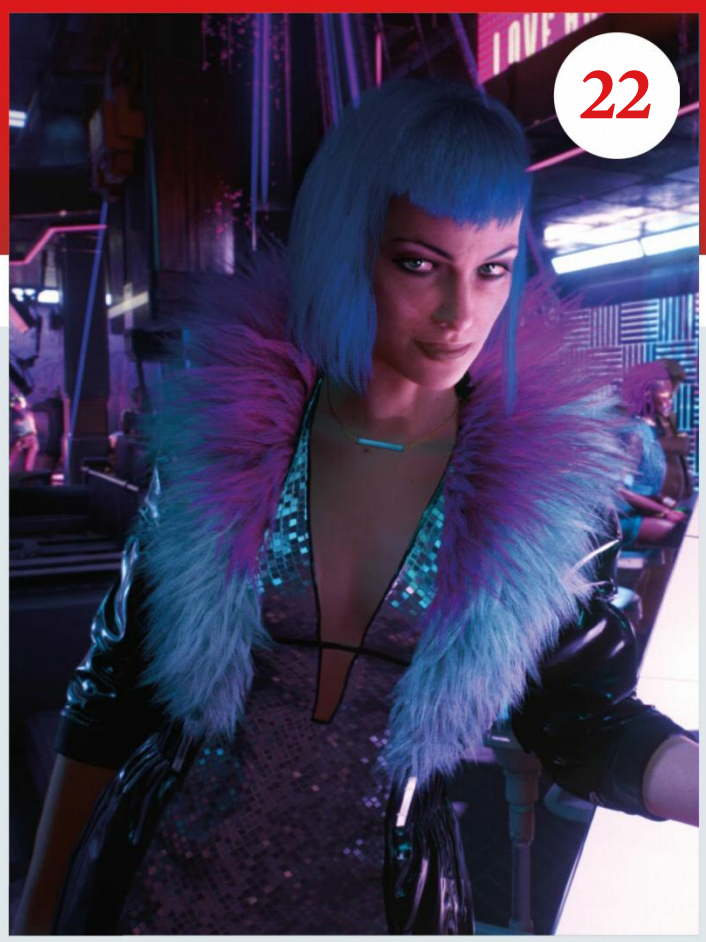

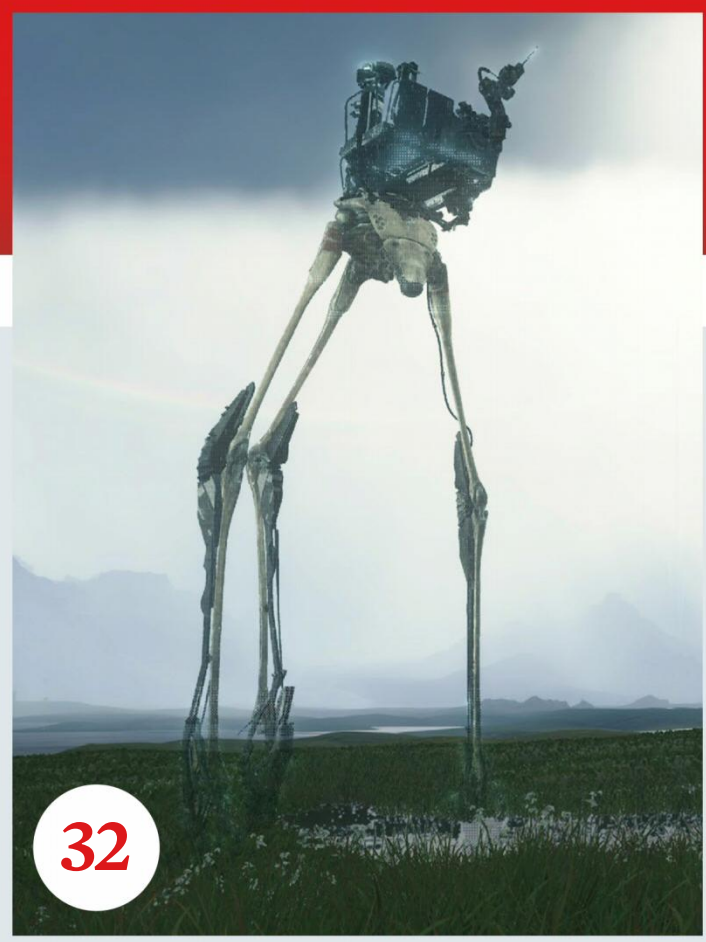

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Andy Kelly's latest favourites.

Some developers, like *Dying Light 2*'s Techland, have cut ties with those accused.

RECKONING

Abusers and harassers come to light in the games industry

Hundreds of members of the games industry have written about their experiences with sexual assault and harassment by peers and colleagues on social media in recent weeks. In many cases, their allegations have quickly been echoed by others with similar experiences, reinforcing patterns of inappropriate behaviour. These stories coincide with a similar spate of allegations of abuse in comics, pro wrestling, and other industries.

A document collecting the allegations, initially shared in a Medium post titled 'Survivor Stories of Harassment/Abuse/Assault within the gaming live-streaming industry', now contains hundreds of accounts of abuse. While the initial accusations were made about streamers, this inspired others to come forward from across the industry.

A NUMBER OF UBISOFT EMPLOYEES HAVE BEEN ACCUSED OF SEXUAL ASSAULT

A number of Ubisoft employees have been accused of sexual assault, harassment, and inappropriate behaviour. Ubisoft told PC Gamer it was "deeply concerned by these accusations" and was looking very closely at them. Since then, *Assassin's Creed Valhalla* creative director Ashraf Ismail has stepped down from his role after being accused of having a long-term affair with a fan, while editorial VP Maxime Beland has been suspended over allegations of racism and homophobia.

RPG writer Chris Avellone has also been accused of sexual misconduct by several women, prompting an apology on Twitter.

MONSTERS BEWARE

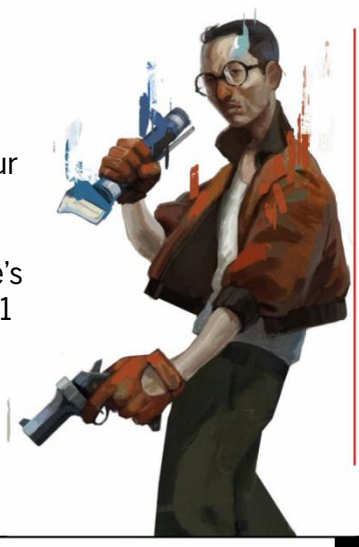
THE WITCHER RETURNS

After coronavirus-related disruption halted production on The Witcher season two in mid-March, Netflix announced that filming will resume on August 17, 2020. The second series was initially expected in 2021, but it may well arrive later next year following the five-month production gap. ■ ***HS***

POINTLESS

STEAM POINTS STORE

If you've ever wished your Steam profile looked more like a GeoCities website, you'll love Valve's new Steam Points Shop. For every £1 you spend on games you earn 124 points, which can be traded for animated stickers, avatar borders, and backgrounds. ■ ***AK***



CHAT UP

DISCORD REBRANDS

Voice chat app Discord ain't just for gaming any more according to its new rebrand. That means a new slogan, a company statement pushing inclusivity, and an effort to streamline the new user experience. But, more importantly, they're finally getting rid of all the cringeworthy gamer jokes in it. ■ ***RV***

ABOVE, TOP: A large volume of the allegations have been made against Ubisoft employees.

ABOVE, BOTTOM: The accusations have prompted some heavily-criticised apologies and excuses.

Dying Light 2 developer Techland announced that Avellone will no longer be involved with the project.

#TWITCHBLACKOUT

The volume of allegations in the streaming industry inspired the hashtag #TwitchBlackout, which called for streamers to avoid streaming for the entire day on June 24. Twitch made a statement promising to look into the allegations, but streamers haven't been convinced.

A former Twitch employee responded to the company's statement by pointing to past incidents where it downplayed a sexual harassment complaint that had been presented to both the head of HR and Twitch CEO Emmett Shear. Shear then publicly posted an email he sent to Twitch employees, which did not address any specific incidents or offer details on how Twitch plans to combat issues of sexual misconduct.

In many cases, victims point to the reasons they waited for years to speak out against their abusers: the fear of reprisal, of being blacklisted from the industry, or not being believed when they did share their experiences.

Until serious action is taken to root out abusers and change the culture that allowed them to commit those abuses, we can expect more of these grim revelations.
Wes Fenlon, Fraser Brown

Highs & Lows

HIGHS

Bundle for Racial Justice
This charitable itch.io bundle raised over $8 million for NAACP and Community Bail Fund.

Disco Elysium
Our Game of the Year 2019 is now getting the TV adaptation treatment, though it's still in the early stages.

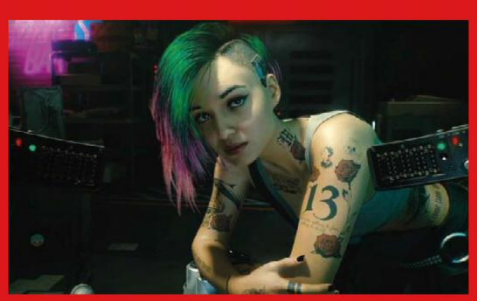
Star Wars: Squadrons
We're getting a new Star Wars space sim, exclusively first-person, with dual campaigns and no loot boxes.

LOWS

Crucible
Following its dismal launch, Amazon's free-to-play shooter is no longer available on Steam.

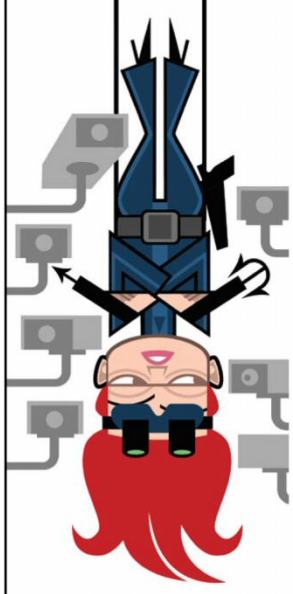
Mixer
Less than a year after securing Ninja and other big streamers with tonnes of cash, Mixer is shutting down.

Cyberpunk 2077
Though it's apparently largely complete, *Cyberpunk 2077* has been delayed until November 19 so CDPR can 'apply more polish'.



The Spy

BUT WHO WATCHES THE SPY?



THE SPY
The Spy will never be publicly traded.

In 1847, when Alexander Graham Bell's parents were giving birth to their second child, could they have predicted that a subsidiary of a company that he would found to handle the patents of his most famous invention would one day acquire an entertainment conglomerate that oversaw a distribution division that owned a videogame publisher that would create the studio that would develop *Mortal Kombat 11*?

Don't get The Spy wrong, this isn't some butterfly effect thing. The Spy is not claiming that if Alexander Melville Bell had been run over by a double-decker horse drawn carriage before conceiving the inventor of the telephone that *Mortal Kombat 11* would never exist. Sooner or later, mankind's appetite for a roster of characters brutally dispatching each other in service of an absurd storyline would reach a critical tipping point.

The Spy posits this: *Mortal Kombat 11* had to happen. What if certain events are so integral to history that they become a fixed anchor point in reality. Perhaps in another of the infinite universes *MK11* developer NetherRealm Studios is a subsidiary of a company owned by the sentient patent of renowned English plumber Thomas Crapper's floating ballcock. The key point is that it would still be made.

Viewed through this lens, it's clear that the slow shifting tectonics of capitalism are largely a pointless distraction from the actually useful business of making games. But the marionettes must continue their dance. Look through the right window of the right skyscraper and you'll see an AT&T executive surveying his company's empire. He is probably called John, or Jeff, or Jack, or Jon. His brow furrows. The big line on his important chart is going down. This is bad. John, or Jeff, or Jack, or Jon's job is to make the big line go upwards.

But John, or Jeff, or Jack, or Jon has a plan. On another page he has drawn a circle around the words Warner Bros Interactive Entertainment. Next to the circle is an arrow leading to a doodle of a house that, if The Spy were to guess, represents a different corporation. As if to reinforce the point, John, or Jeff, or Jack, or Jon has put some dollar signs underneath the arrow.

AND THE WARNER SISTER, DOT

What is The Spy to make of this scene? Perhaps that, following a string of acquisitions, AT&T was $200 billion in debt. This sounds bad, but it's important to remember that after a certain number of zeroes, money becomes a purely theoretical endeavour. Despite being imaginary, though, it's a number that will make shareholders nervous, because it's a sign that AT&T's corporate board isn't doing a very good job of imagining that the number was smaller. As a result, it's planning to sell bits of itself as tribute – including, reportedly, the videogames bit of Warner Bros, which it owns.

A few companies have been floated as possible buyers, including Activision, Take-Two, EA, and, most recently, Microsoft. Supposedly AT&T is looking for $4 billion for the sale. For that, a buyer would net a great stable of studios, including NetherRealm, Monolith, Avalanche, Traveller's Tales, and Rocksteady. As yet, though, it's unclear what would happen to the licences – DC, Lego, etc – that prop up much of those studios' output.

A FEW COMPANIES HAVE BEEN FLOATED AS POSSIBLE BUYERS, INCLUDING ACTIVISION

Whatever the future holds, you'll always have *MK11*. And you'll have this page, which the universe also conspired to make happen. ■ ***The Spy***

This month in... 2010

ISSUE
317, September 2010

ON THE COVER
Dragon Age II

IN CINEMAS
Resident Evil: Afterlife

1 What is there even left to say about *Dragon Age II* at this point? Possibly that it would have been ridiculous not to be excited about the sequel to one of the best RPGs of the '00s. "This is *Dragon Age* fundamentally altered and upgraded," writes Rich McCormick in his cover feature. The first point is unquestionably true. Your mileage may vary on the second.

2 "Hilarious... stupid and occasionally fun," wrote Tom Francis of *Singularity*. It's a useful reminder that a 68-scoring game can still be worth playing.

3 Richard Cobbett takes us on a tour of the 15 worst games ever, from *Limbo of the Lost* to a game starring the Peperami mascot. As a public service to internet discourse, everyone should be forced to play one of these before they claim some minor inconvenience is a sign that an otherwise decent game is actually the worst thing ever.

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Special Report

PCG INVESTIGATES

Endlight features hundreds of objects which all need hitboxes.

SUPER COLLIDER

A good hitbox is hard to make

Most games are about one thing hitting another. A bullet and a soldier's head; a platform and your foot; a sword and a demon's arm; a jaw and a Shoryuken. And that means a lot of games are all about hitboxes, the invisible geometry which tells them when things collide.

But while they're ubiquitous, hitboxes also exist in a thorny tangle of hard math and soft player perception. There's a real art to making them feel great to play with, and there's real genius in getting them to work right, since computers are surprisingly bad at dealing with collision. The result is that different games take completely different approaches to the ways hitboxes work.

In games like *Monster Hunter World*, your character's hitbox pretty much matches what you see, so you can avoid getting hit by some attacks by simply changing your stance so it passes through your legs. "Ninety-five percent of the time I'm thinking about hitboxes!" says *Monster Hunter* champion speedrunner SD Shepard. "When I try to tell people how to get better, I tell them not to hit the monster but to stand there and watch how it moves. When it attacks, see where you have to be so it can't hit you."

That's what you'd expect, right? WYSIWYG physical violence lends a visual consistency which helps you understand what's happening and how to play well. But hitboxes in other genres don't work like that at all. Look at shmups, for example, in which the hitbox for your ship is traditionally far smaller than what you see.

"This allows the player to dodge things they would have hit, resulting in many impressive near-misses that make the player feel great," says Jim McGinley, developer of *Endlight*, an upcoming indie game which melds shmup action with music as you fly through abstract spaces.

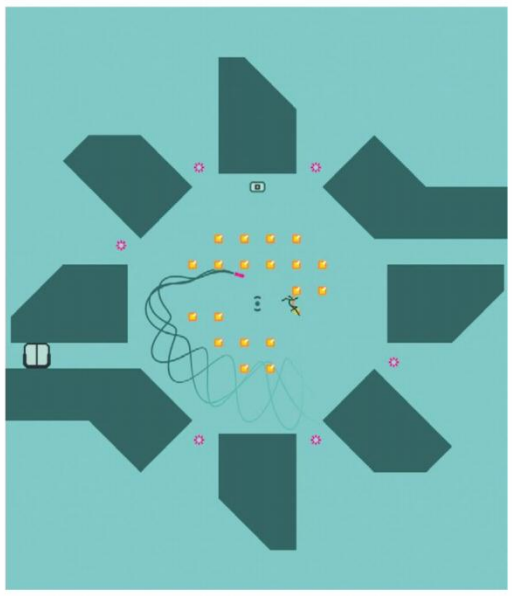
SMASH HIT

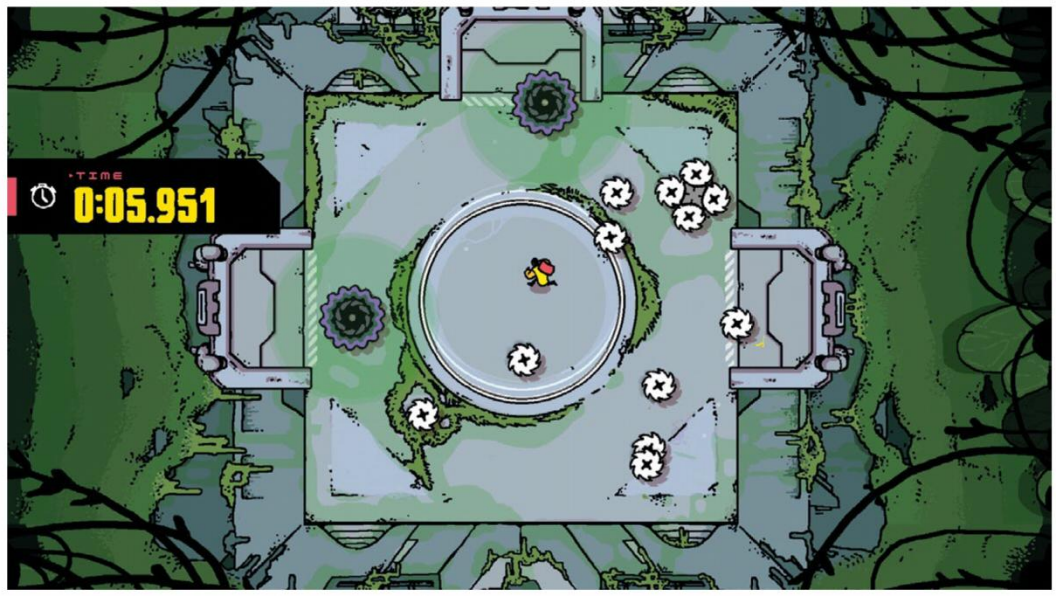
Your ship in *Endlight* actually consists of three hitboxes. The smallest collides with walls and obstacles, encouraging you to take risks. The second is larger than your ship and collides with the hoops you're attempting to fly through, turning near-misses into successes and making you feel skilful. The third is three times the size of your ship. This one triggers a 'whoosh' sound when you pass near walls and obstacles.

Hitboxes, after all, aren't only for physical collisions. They also govern the way the world behaves, triggering events and effects. Instant-death dodge-'em-up *Disc Room* also features whooshes as your hitbox grazes its blades, as well as applying a dose of screenshake (one of its developers is Jan Willem Nijman, who uses screenshake liberally in *Nuclear Throne*), and it slows down time.

Right angle

Despite the name, hitboxes aren't usually square. Most 2D fighting games use the rectangle, but *Marvel Vs Capcom* uses circles to avoid corners causing a hit where you don't expect it. Platformers like circles, too. They help *N++* feel more organic. In action games like *Dark Souls*, they largely follow your character's body.





FAR LEFT: *N++*'s ninja's hitbox is a circle, apart from when it's a square, which prevents it from tipping over squared edges.

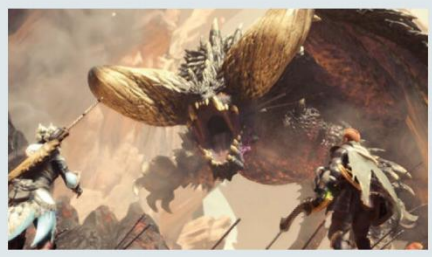
LEFT: *Disc Room*'s saw blades only kill you after you've been in their hitbox for 50ms to make them feel fair.

BAD HITBOXES *The delicate art of hitboxes is revealed when things go wrong*

RYU
STREET FIGHTER V
When Capcom reduced the length of Ryu's crouching medium kick they undermined classic Ryu play and the competitive scene stopped playing him.

ORNSTEIN AND SMOUGH
DARK SOULS
A bug causes boss hitboxes to invisibly persist in the world after you kill them. Normally it doesn't matter, unless you fight two at once...

PATHFINDER
APEX LEGENDS
Pathfinder's hitbox was originally larger than his body, making him the easiest character to hit. After fixes, his thin legs made him seem one of the hardest.



NERGIGANTE
MONSTER HUNTER WORLD
Nergigante's palm-slam attack can flummox newcomers who don't know that when its arm is damaged, it grows spikes which make the hitbox bigger.

"It notifies you of the danger and gives you more time to react," Nijman explains. "Basically, we want exciting moments to happen as often as possible. It feels much better to make an impossible escape than to die from something that looked easy."

Disc Room's blades have two different hitboxes – faster blades have smaller boxes – a tactic shared with *N*, Metanet's platformer. "The gold collision shape became a little bigger and the mines a little smaller, so it's less frustrating, less clunky to get around," says co-designer Mare Sheppard. "You figure out your plan for how you want things to go, and these tiny changes help that plan become more likely to be successful, without making you feel the game is unfair or too generous."

That's because hitboxes aren't really meant to be about technical truth. They're about making a game feel like it's reflecting your actions in the way you expect. When hitboxes are too accurate, they can make a game play badly, as Julian Spillane, co-creator of Early Access brawler *Mighty Fight Federation* discovered with the fighter Heckbane.

"We call him a rushdown character, which means he needs to be up-close and personal, so we gave him dash moves to let him close the gap. But we found in our first week that people thought he was very weak and that he didn't have many tools to close distance."

It turned out that the problem wasn't closing distance. It was the hitbox on his jab attack. "It just wasn't exaggerated enough to allow him to land a blow and start a combo. Yeah, it's unrealistic for a jab to have a big hitbox, but it's worth exaggerating so it's rewarding when you've dodged and evaded everything to get in."

So hitboxes don't behave as you expect. They also don't work like it either. In fact, collision is a notoriously difficult field within computer science. "This has been the thing I've been obsessed with for 20 years," says Raigan Burns, the other half of *N* developer Metanet. "It's an open problem. No one has solved it. I feel like I finally understand what it makes it complicated, but I don't know if I can explain it."

Reader, he can't. Suffice it to say, while it's simple for us humans to work out if one thing is overlapping another, describing that in maths is very difficult, and to run the thousands of collision tests per second it needs, a modern game has to fudge the numbers, using hacks and tricks to reduce the load. Sometimes this causes the weird jank we're all familiar with – clipping through walls; the object launching into infinity; the eternally twitching ragdoll.

"WHEN HITBOXES ARE DONE WELL, YOU WON'T EVEN HAVE TO THINK ABOUT THEM"

Hitboxes are a fascinatingly fluid part of game design, there to fool us into believing we're playing in a world. "Everything in games is about perception, and we're using sleight of hand with our games, every single frame," says Spillane. And when hitboxes are done badly, a game breaks with our expectations. "But when hitboxes are done well, you won't even have to think about them," says Nijman. "It will feel exactly as you predict." ■

Alex Wiltshire

Positive Influence

INSPIRATIONS AND CONNECTIONS IN GAMES

PUB LAUNCH

How **MINSKWORKS** snuck a snapshot of real England onto Steam

There's an England beyond Piccadilly Circus and the thatched roofs of *Everybody's Gone to the Rapture*. A country where the residents wear tracksuit bottoms rather than tweed, and drink their tea from enormous Sports Direct mugs. Where unfortunate nicknames stick for life and neighbours gossip about the local soak.

That's the England that Greg Pryjmachuk knew, and sought to recreate in *Landlord's Super*. "These towns are at the mercy of global actions," he says. "I worked in my town's concrete industry up until 2008 when the economy made it go kaput. There was a lad in my local boxing gym who was a real talent, but got into a car accident and the corrective surgery for his leg couldn't be done through the NHS. There's a real prison of poverty to these places."

Rather than set his life simulation in the modern day, however, Pryjmachuk traced the problems back to their root: the '80s. "I was having a cup of tea with my nan and hearing about how her first house was five grand," he says. "Morbid curiosity starts to take over at that point."

You begin *Landlord's Super* living in a caravan, but clutching a letter from Maggie Thatcher granting you permission to buy your late uncle's council house at a hefty discount, how generous. But if you can make something of your dilapidated plot by filling in the floor, patching up the roof and other odd jobs, then maybe you can rent it out, lifting yourself out of poverty in the process.

It's a game about bettering yourself through hard graft – while laying the foundations for the housing crisis the UK grapples with today. By removing a council house from the market, you're pushing up rent for the rest, making life tougher for the people around you in Sheffingham.

It's impossible not to notice that your actions have consequences for your neighbours. With cash short and concrete to mix, it's tempting to nab the bag of sand you find in the back garden of number nine. But the next day at the job centre, work advisor Kashmiran seems more muted than usual. She'd saved up for a patio, she says, only for somebody to nick the materials. It's as if *Deus Ex* swapped out Liberty Island for Lincoln.

"Playing through *Fallout 2* back in the day, I had that impression of player action and consequence instilled in me," Pryjmachuk explains as he reflects on the past. "It's what made me fall in love with the medium."

GHOST TOWN

The diversity of Sheffingham's population was instinctive – an attempt by Pryjmachuk to represent the Britain he saw around him. There's a sense that people of different backgrounds have been brought together by adversity, reflected in Jeremy Warmsley's soundtrack, which recalls 2 Tone bands like The Specials. "That was a big touchstone," Pryjmachuk says. "But also I cannot overstate how much of an impression Anne Dudley's work on The Full Monty had on me. A well-deserved Oscar, that one."

For the town itself, Pryjmachuk took visual inspiration from Peter Mitchell, Tish Murtha, and Chris Killip – photographers who had put working class homes under the lens in the '80s. "All of their work captures the face of Britain on the cusp of change," he says. "Visually different games are always a hard sell, but I'm thankful people have been so open to the style so far."

At the centre of Sheffingham is its pub, pointedly named The Anchor. It might be ugly, with its mouldy picnic benches and pots piling up in the kitchen, but, like life before the pandemic, it's the place you go to connect with the town's community. "You head there if you need to lift your spirits, earn a few bob, recharge your character, or get advice from Jimmy," Pryjmachuk says.

It's 'Scouse' Jimmy who teaches you the basics of construction, which is nice of him – but he's also the man who points out the bags of sand in Kashmiran's garden, which muddies his character a bit. More than anything, *Landlord's Super* feels like a twisted *Stardew Valley*, in which your family inheritance is as much a curse as a gift.

"*Stardew Valley* is a huge influence for me," Pryjmachuk says of ConcernedApe's game. "I love games where, when you're not playing them, you're planning your next move. I want the player to leave the game and be thinking how they're going to get that roof sorted." ■

Jeremy Peel

ROAD MAP

Player suggestions for* Jalopy *that made it into this follow up

VISIBLE HANDS
You use them to interact with your toolbelt.

SURVIVAL ELEMENTS
If you work too long, you'll get weak and faint.

LIVING TOWNS
Smart NPCs pootle their way around Sheffingham.

THE DIVERSITY OF SHEFFINGHAM'S POPULATION WAS INSTINCTIVE

ABOVE MAIN: 'Scouse' Jimmy is what you might call a negative influence.

LEFT: For Brits, it's eerie to play in a world this familiar.

DNA Tracing

GAMING'S LINEAGES EXPLORED

INFINITY WARD BALANCED THIS HELLISH GAME OF CHANCE WITH A SOMBRE TONE

WAR WITHOUT END

How INFINITY WARD found its way through no man's land

There have been two Infinity Wards. The first invented *Call of Duty*; the second saved it from diminishing returns. In the middle was a cataclysmic event in game development, one that played out in public and left a world-famous studio forever changed.

The origin point of *Call of Duty*, when you get down to it, was actually *Medal of Honor: Allied Assault*. While still under the auspices of a company named 2015 Games, the nascent Infinity Ward team established a new paradigm for first-person shooters.

Where FPS protagonists in the preceding decade had been unstoppable steam trains let off the rails, *Allied Assault*'s Lt Mike Powell was unnervingly human – all too vulnerable to machine-gun nests and mortar fire, which seemed to rip the air in two.

That sense was only compounded in the first *Call of Duty* – released, astonishingly, just the next year. Its quintessential moment, ripped straight from Enemy at the Gates, saw your Russian protagonist armed with merely a strip of Mosin Nagant ammo, and the order to pick up a gun from the cold hands of the doomed comrade in front of him. Over a campaign characterised by ringing ears and crawls through the mud, dumb luck played as much a role in your continued survival and promotion as player skill. Infinity Ward balanced this hellish game of chance with a sombre tone and sense of nobility inherited from Spielberg, the original architect of *Medal of Honor*.

BELOW: A backwards roll is a bold way to join the Battle of Stalingrad. Let's see if it pays off.

CHANGING FACES

That tone wouldn't be what the studio carried forward into later games. Instead the most important part of *Call of Duty* proved to be its shifting perspective. Those early games swapped between British, American and Russian soldiers in order to cover as many fronts of the Second World War as possible. But the ability to inhabit different bodies opened up new narrative possibilities, which came to shocking fruition in 2007's *Modern Warfare*.

Call of Duty 4 posited that a shooter didn't need to stick with any one protagonist. In fact, Infinity Ward decided that player characters didn't even need to survive the mission: the second set of eyes you occupy in the game have a bullet fired right between them shortly afterwards. *Modern Warfare*'s water-cooler moment, meanwhile, was simulated radiation death first-hand.

The idea introduced a Tarantino-esque narrative instability to the FPS genre – no character was invulnerable, lending Infinity Ward's stories an electricity that peers couldn't match. Even when *Modern Warfare 2* pushed the boundaries of taste as terrorist atrocities rubbed up against a Bond-ian world tour, that abiding sense of volatility won the day.

Then the sky fell in. Activision fired studio heads Vince Zampella and Jason West for "breaches of contract and insubordination", and in the aftermath, Infinity Ward's core team followed them out the door. West and Zampella founded Respawn Entertainment, developer of *Titanfall*, who with the launch of *Apex Legends* would go on to become Infinity Ward's chief rival.

BLEEDING OUT

The remaining Infinity Ward team was left with a gaping hole in the hull and a series to keep afloat. Sledgehammer Games helped patch over the tear, developing *Modern*

FACIAL 'FARE

The evolution of Price's moustache

1940s
A hedgerow growing on a stiff upper lip.

2000s
That strip of carpet you had left over after getting the stairs done.

2010s
Enough cover to hide behind in a firefight.

ROLL CALL

Who developed what throughout the ever expanding series of games

MEDAL OF HONOR
Built by DreamWorks Interactive, at the behest of Steven Spielberg.

MEDAL OF HONOR: ALLIED ASSAULT
The first PC game in the series, defined by its D-Day assault scene.

CALL OF DUTY
The *Allied Assault* team became Infinity Ward for its debut hit.

CALL OF DUTY 2
Players scrambled through the larger maps of Stalingrad.

CALL OF DUTY 3
Despite the name, this was a console-only spin-off handled by Treyarch.

CALL OF DUTY 4: MODERN WARFARE
Call of Duty becomes a true phenomenon.

CALL OF DUTY: BLACK OPS
This Fight Club rip-off hasn't aged well.

MODERN WARFARE 2
An interactive Bond film in all but name.

BLACK OPS II
The second Cold War rages in the sequel.

MODERN WARFARE 3
A new studio, Sledgehammer, helped with the campaign.

BLACK OPS III
A third Cold War? Are we really doing this *again?*

CALL OF DUTY: GHOSTS
A thin and directionless retread.

CALL OF DUTY: ADVANCED WARFARE
Sledgehammer's bold but solid solo outing.

BLACK OPS IIII
COD takes its first hash at battle royale.

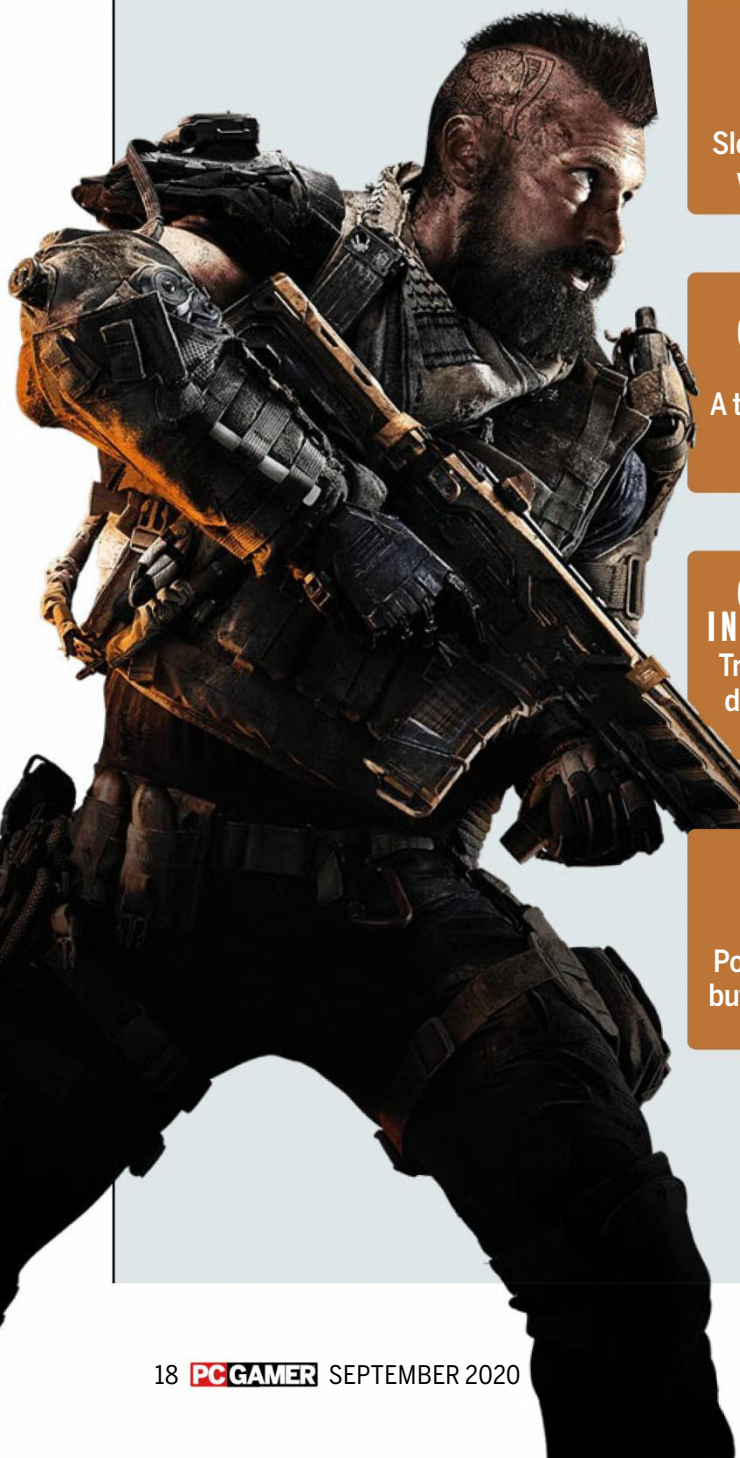
CALL OF DUTY: INFINITE WARFARE
Traded dogs for space dogfights. Ambitious and underrated.

CALL OF DUTY: WWII
Sledgehammer's revisit of Infinity Ward's historical glories.

MODERN WARFARE
Politically problematic, but worthy of the name.

WARZONE
60 million players and counting.

KEY
- DreamWorks Interactive/2015 Games
- Infinity Ward
- Sledgehammer
- Treyarch



Warfare 3's campaign while Infinity Ward handled the multiplayer, paving the way for the cross-studio collaboration *Call of Duty* relies on today. When Infinity Ward released its next solo project, however, the public was finally able to assess the damage: with *Ghosts*, the studio had lost its voice, retaining the set piece bombast of *Modern Warfare* but none of its purpose.

Infinity Ward's glory days might have ended there, were it not based within commuting distance of Naughty Dog. Into the studio's creative leadership vacuum stepped Taylor Kurosaki and Jacob Minkoff, veterans of *Uncharted* and *The Last of Us*, who overhauled Infinity Ward's approach to story. Rather than rely on explosive plot twists, which risked becoming predictable, they instilled a new focus on slowburn character arcs. The result was *Infinite Warfare*, which divided fans on its deep space setting, but told a bold story about the cost of being in command from the perspective of a battleship captain. When Infinity Ward came to reboot *Modern Warfare*, it did so from a position of strength rather than desperation.

The difficulty has been in marrying these new successes to the old. For 2019's *Modern Warfare*, Infinity Ward returned to a split-perspective story, which diluted its otherwise solid character work – players simply didn't get to spend enough time with each protagonist to invest in their plights and goals. *Modern Warfare*'s recognisably real-world concerns, meanwhile, made an uncomfortable backdrop for its shocking set pieces. It's impossible to divorce a gas attack at the centre of its campaign from the Gulf War environment it so meticulously copies.

THE DIFFICULTY HAS BEEN IN MARRYING THESE NEW SUCCESSES TO THE OLD

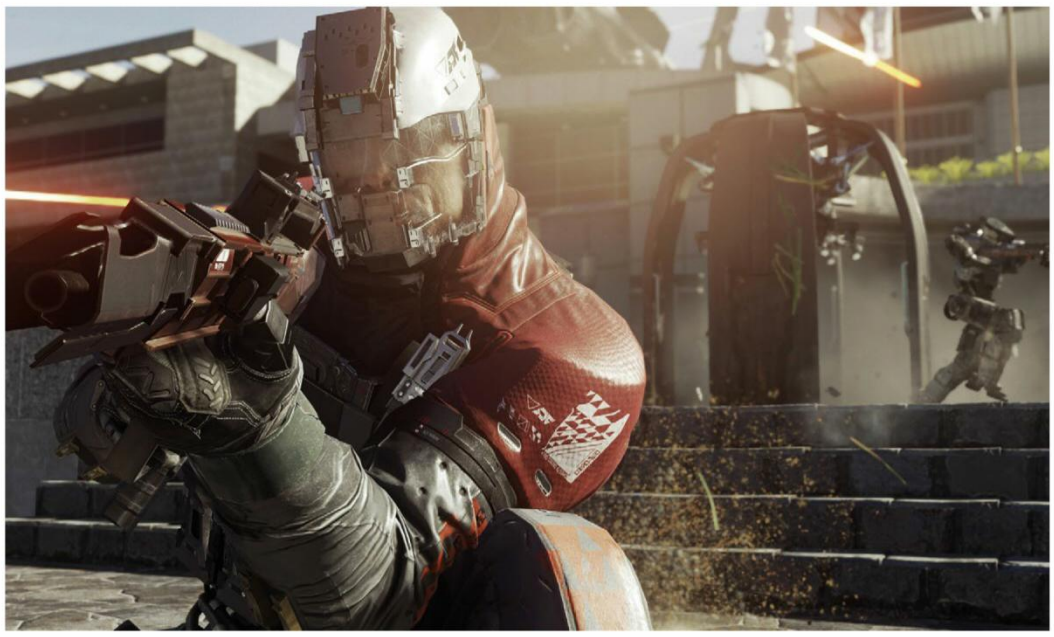
QUIET TIME

Yet the new Infinity Ward triumphed in one area it never had during its previous iteration: de-escalation. Where each entry in the original *Modern Warfare* trilogy attempted to one-up its predecessor, the reboot turned down the volume. One mission asked players to distinguish terrorist from innocent in a London townhouse, while online, Gunfight mode required them to track the footsteps of just two enemies.

That intimacy informed *Warzone*, which despite the sweep of battle royale, often comes down to cat-and-mouse fights within tight buildings. The studio seems to have learned that too much action comes at the expense of tension.

With *Warzone*'s playerbase on the rise, the plan is to run the battle royale as an evolving story, folding in the characters and events of Treyarch's upcoming *Black Ops* reboot. Infinity Ward now faces the same challenge it did before that schism: to keep its stories coherent, and to resist the urge to make every explosion larger than the last. At least it has seasoned storytellers in command, and a competitor to keep it sharp: even from afar, at the head of Respawn, Vince Zampella is helping to keep the studio he co-founded on track. ■

Jeremy Peel



ABOVE: Infinity Ward's multiplayer tends towards the frenetic.

BELOW: You reckon that seafood restaurant sells cod?

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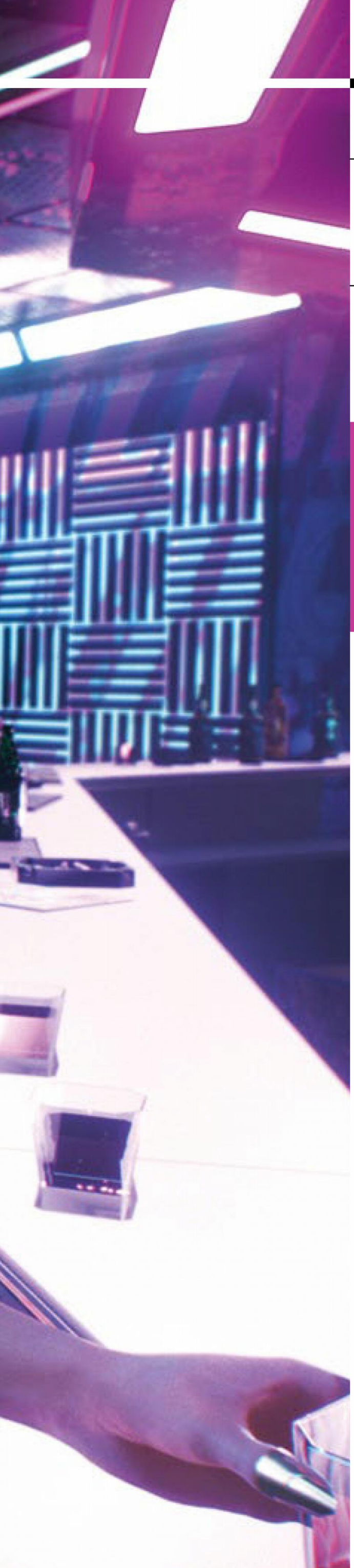


NEED TO KNOW

RELEASE	DEVELOPER	PUBLISHER	LINK
November 19, 2020	CD Projekt Red	In-house	cyberpunk.net

CYBERPUNK 2077

We finally go hands-on with 2020's most exciting RPG

When you create a character in *Cyberpunk 2077*, you get to choose from one of three life paths, which are basically origin stories. You can be a street kid, a slick corporate agent, or a wandering nomad. This not only determines your starting location in the story, but your relationship with Night City itself.

"It was tricky to design," says Tomasz Marchewka, lead story writer. "We wanted to give you as much freedom as possible, so you can decide what kind of cyberpunk you want to be. You can choose how you look and, to some extent, who you are. But then we decided, wouldn't it be cool if you had a few different origin stories to choose from?

"You might start as a corpo, as a street kid, or as a nomad, and that's going to give you a very different origin story. But later on it affects how you interact with the world, and some special situations which are super specific to your class." Street kids, Marchewka says, have a deep understanding of the streets as an ecosystem. "Everyone has a place in the tension between gangs, police, politics and corporations," he says. "So you understand that you need to know where you are, but also what things you can manipulate to find shortcuts through life."

Nomads, on the other hand, are much more about close relationships. "You don't have to be that way, but you understand this way of living. You've spent your life travelling with a group of people. It might not have gone the way you expected, and you're now trying to find your own place in the world. But you understand those who are looking for a family or a community to belong to." But whatever path you choose, one thing is the same with every version of hero V: they're under the social radar, trying to break away from the system.

PLAYED IT

I choose the nomad path, which dumps me in the Badlands: a vast, barren desert region outside the walls of Night City. I spend some time skidding around in a retro-fitted '80s rally car, enjoying the vehicle handling, which has a nice weight to it. This bright, open space feels more like Mad Max than Blade Runner. I'm in the Badlands to pick up a job, but the local sheriff has taken a dislike to me.

BAD NEWS

"It's a totally different place to Night City," says Marchewka. "But it's still strongly connected to it. The town you start in is still being controlled by corporations. The sheriff has his role because he's a corporate worker. Even though he's the sheriff, he's still on someone's payroll. The tentacles of Night City are far-reaching."

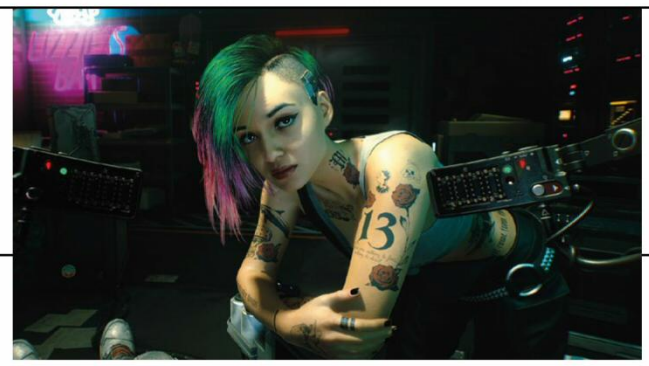
Six months later, after completing the prologue, I relocate to Night City with a new friend and associate, Jackie Welles. This is where *Cyberpunk 2077* begins proper, and it's not long before I'm set loose in the city, free to explore at my leisure. I can hook up with Jackie to pursue the main story, or I can jump in my car – now upgraded to a super-fast Quadra Turbo-R – and hunt for side missions.

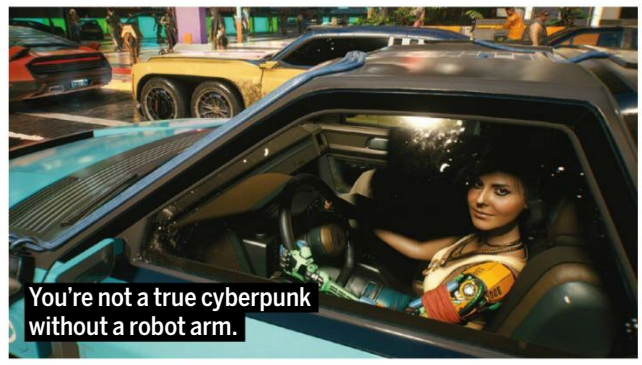
This vehicle handles very differently from the bouncy rally car I had in the desert. It feels more like a supercharged sports car, and I love the low, slightly fish-eyed third-person view, which gives an added sense of power and speed. Tearing around the city's dense, intricate streets in this thing feels sensational. I'm also thankful for the slightly rubbery, forgiving physics, which let me slam into scenery, obstacles and other traffic without losing much momentum.

"Night City is not just a place filled with content," says Marchewka. "We want it to feel like a living, breathing ecosystem, filled with organisations and people who impact each other. You'll get involved in gang wars and corporate actions like counter-intel. You'll be interacting with the world on many different levels. Night City »

"THE TOWN YOU START IN IS STILL BEING CONTROLLED BY CORPORATIONS"

Cyberpunk 2077





You're not a true cyberpunk without a robot arm.

There are loads of different ways to approach combat.

is vast, and there's something waiting for you around every corner."

I get a sense of this as I cruise the streets, noticing mission markers and other intriguing blips on my radar. Optional missions come in a lot of different flavours, but side jobs and gigs seem to be the main ones. Gigs are substantial, story-driven side missions, in line with those in *The Witcher 3*. Side jobs are smaller, more immediate moments, like dealing with someone who has overloaded themselves with implants and is suffering from cyberpsychosis. You can also hack into the NCPD police database to hunt for wanted citizens and collect the bounty money, and I saw a few random gang fights break out on the street too.

"Sometimes the story is not in plain sight," says Marchewka. "It could start as just a gang shootout, but once you start prying you'll see that it's connected to other things. But even the smallest stories will add up to a cohesive whole." This is something CDPR did extremely well in *The Witcher 3*, with side quests that felt weighty, worthwhile, and unpredictable, so I'm glad to see that continue in Night City. A simple job can escalate into something much more complex.

But missions aside, just driving around the city is entertaining enough. I'm in the Asian-influenced Watson district, which is incredibly dense, detailed, and vibrant. Masses of pedestrians of all shapes, sizes and colours, decked out in wild futuristic clothes, roam the streets. I see alleys crammed with noodle bars and vending machines, and busy intersections throbbing with life and sound.

CITY LIVING

Exploring the city, *Cyberpunk 2077* feels like *Grand Theft Auto*; in missions, however, it has more in common with *Deus Ex*. In an early job I escape from the hideout of the heavily-augmented Maelstrom gang when a deal goes bad. This is where the sandbox emerges, letting you get creative. I used a mixture of stealth, darting between vision cones and quietly choking goons out, and fast, punchy combat. But I also experimented with hacking, detonating grenades on people's belts and screwing with electronics to distract them. The variety of ways to tackle encounters like this is pretty damn impressive.

In a later mission I use a tech called braindancing to case the luxury penthouse of a CEO I'm planning to rip off. This is the most popular form of entertainment in Night City, letting you experience emotions and memories through a headset called a wreath. But it's also used for more nefarious purposes. I snap a headset on and suddenly I'm in the CEO's apartment, viewing it through the eyes of an ally, Evelyn, who recorded the BD when she last visited. I'm able to scrub back and forth through her memory, rewinding, pausing, and fast forwarding to pick out details to reveal the location of the object I want to steal.

I can also switch between three different layers: visual, audio, and thermal. I have to be a detective here, hunting for clues to where he might be stashing the item. At one point the CEO is on the phone, and I can scan it to listen in on the other side of the conversation. Later, determining that the object has to be kept at a low temperature, I use the thermal layer of the BD to locate cold spots in the penthouse. It's a nice take on the detective vision trope, and I like that I can yank the camera away from the person recording the BD and move it freely around to search for points of interest.

This mission, and the Maelstrom deal earlier, were part of the preparation for a big heist. But, frustratingly, my demo ends before I get a chance to play it. I have ten minutes left, so I drive around the city some more. The sun is setting, casting a golden glow over the teeming streets of Watson. I pan the camera around the car as I drive, watching the dipping sunlight glint off the bodywork, speeding past palm trees, sex clubs, and other glimpses of Night City life. It really is an incredible thing to look at.

From what I've played, *Cyberpunk 2077* is another quality RPG by CD Projekt Red, equal to *The Witcher 3* in terms of its freedom, world-building, atmosphere and mission design. It doesn't seem particularly revolutionary, however; more like a refined, expanded, and ultra-lavish version of things other open world RPGs have done before. What might set it apart is the impact you can make on the city through the decisions you make, and the consequences that ripple out from them. If that's as deep as CDPR is suggesting it is, there might be more to the game than I had time to uncover in this brief hands-on.

Andy Kelly

EXPLORING THE CITY, CYBERPUNK 2077 FEELS LIKE GRAND THEFT AUTO

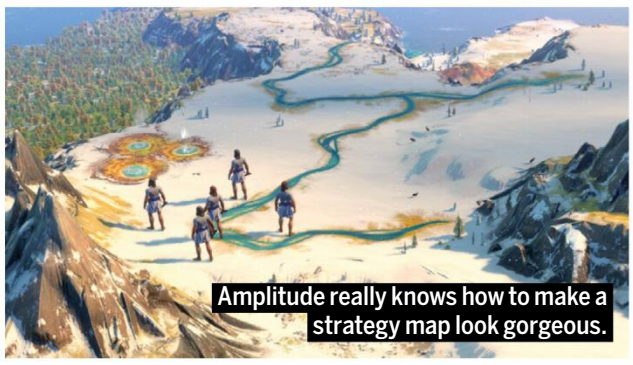
Night City is a violent place, turns out.

Apparently magazines still exist in 2077. Phew.

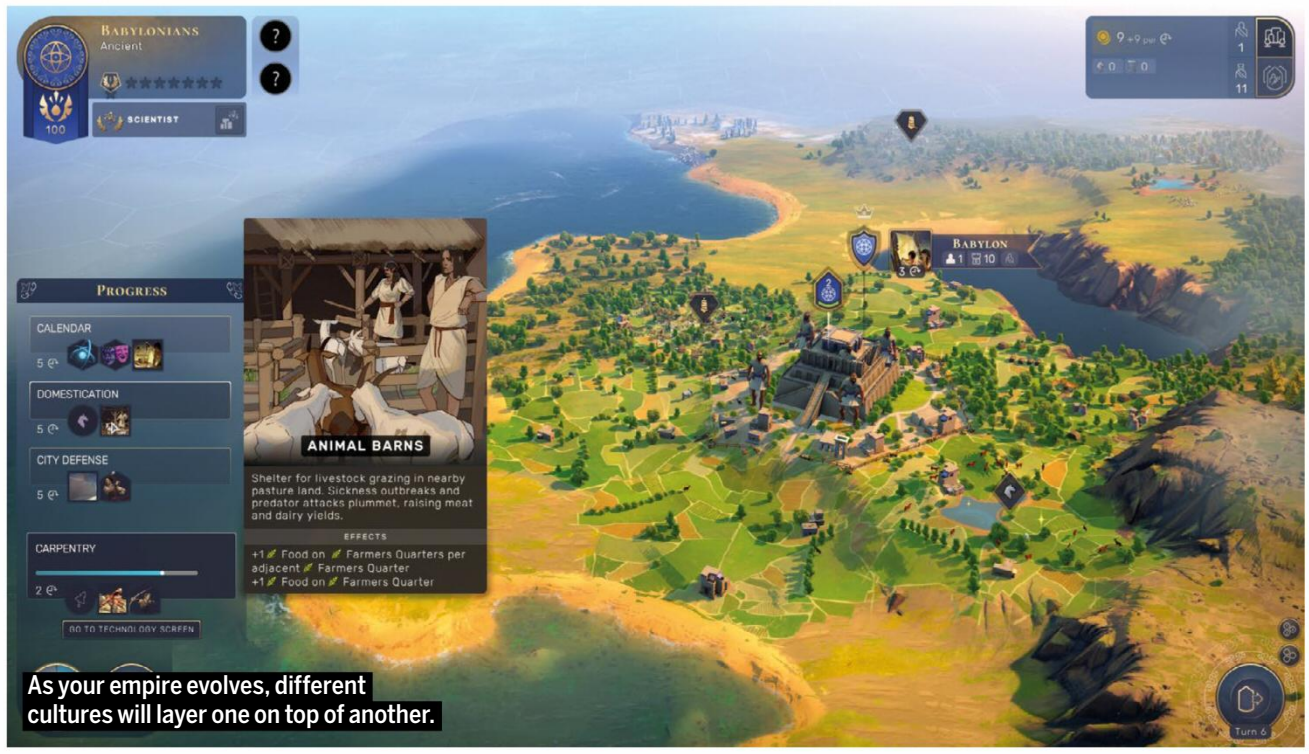
Humankind

As in Amplitude's past games, factions are designed to feel as different from each other in play as possible.

The resources will be familiar to anyone who's played an Amplitude game before.



Amplitude really knows how to make a strategy map look gorgeous.



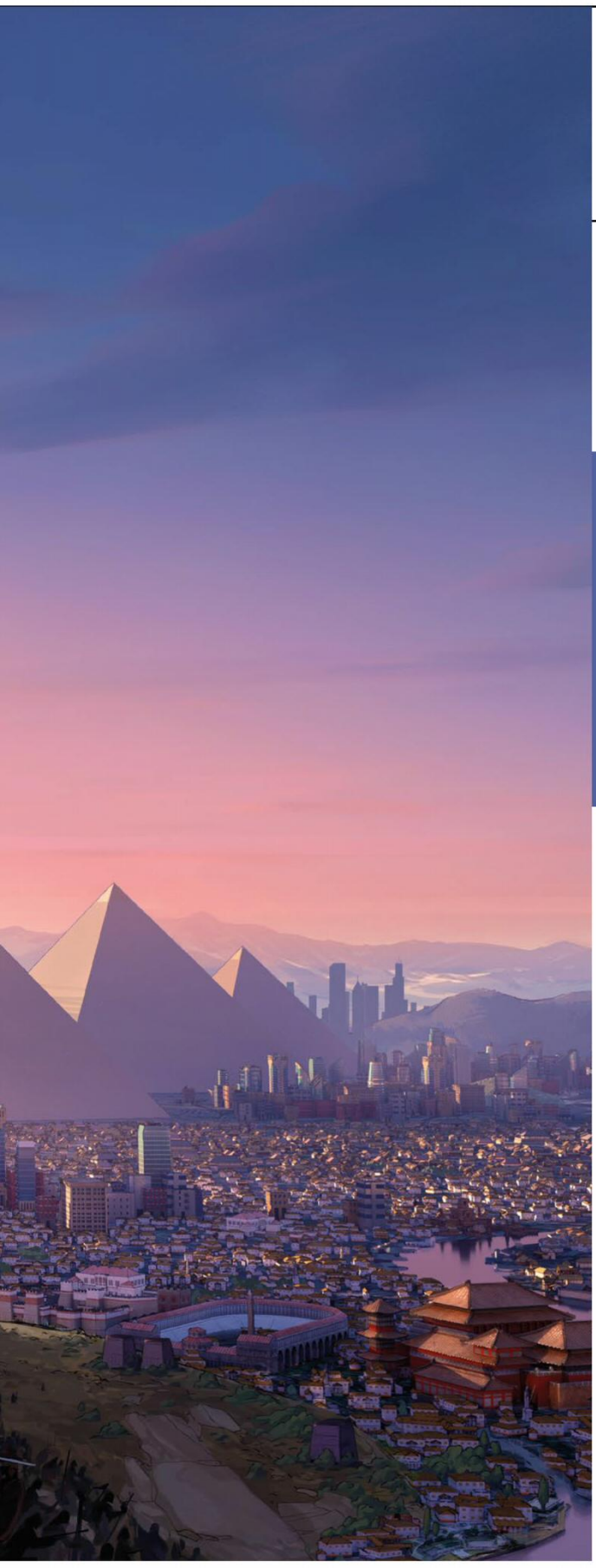
As your empire evolves, different cultures will layer one on top of another.

NEED TO KNOW

RELEASE	DEVELOPER	PUBLISHER	LINK
2021	Amplitude Studios	Sega	humankind.game

HUMANKIND

In this slick, speedy 4X, you've got to get famous or die trying



Cities expand through the placement of connected districts.

You start *Humankind* as a nomadic tribe in the Neolithic era. The wilderness around you holds pockets of treasure: a resource deposit here, a volcanic pool there. As I move my tribe across the map I'm rewarded for discovering the Great Blue Hole, a circular underwater ravine. I'm discovering the world, and I haven't built my first settlement yet.

Amplitude's strategy games have been getting better and better since the studio formed in 2011. The *Endless Space* series introduced some truly bizarre factions to the space 4X formula, but *Humankind* owes more to the studio's fantasy game, *Endless Legend*. *Humankind* has many similar features, in the way that your cities grow district by district, and battles taking place across multiple hexes in a minigame that asks you to make tactical decisions to hopefully outwit the AI – more than just two hexes rolling dice against each other. Though *Endless Legend* is set in a colourful world of high fantasy races, *Humankind* is a more grounded project.

Founder and creative head Romain de Waubert describes *Humankind*'s aspirational nature. "I was reading history books as a child and imagining huge empires," he says. "I still want to see Alexander the Great and his conquest of Persian India, or the Mongol empire, the Spanish empire. All these things are incredible and yes, Spain's still there thank God, but it's not this huge empire, and they still make us dream, whether they were famous or infamous – because not everything was good."

Instead of stepping into the shoes of one of history's most influential leaders, in *Humankind* you play as what Romain de Waubert describes as "the spirit of the nation". The aim of the game is to think "let's do something for posterity. Whatever I do today is forever". You achieve notoriety by doing legendary quests, discovering wonders, building cities, and conquering other civilisations. The system allows you to win even if you get crushed militarily. If you discover enough wonders, make scientific breakthroughs and complete deeds that will be remembered forever, you might emerge with the strongest legacy.

I SOON HAD A SECOND SETTLEMENT IN PLACE WHICH GAVE ME ACCESS TO HORSES

SCOUTING ABOUT

I settle my tribe near some decent food sources and the game asks me to adopt a culture. I can choose between the Babylonians, Egyptians, Harappans, and Mycenalans. I opt for the Egyptians and my civilisation is born. The next phase progresses with satisfying speed. It takes just a few turns to send scouts out in all directions. The exploration phase of the 4X genre is often the most dynamic, but *Humankind* moves at a good pace at this stage. Early research only takes a couple of turns, you can turn out simple units quickly and cheaply. I soon had a second settlement in place which gave me access to horses. There's a very pleasant sense of progress.

PLAYED IT

As your culture moves towards the modern era it can evolve. "What is a civilisation, basically? It's great to create this country I'm going to play, but what are they in terms of culture, religion? Every country you see today is probably the result of a succession of cultures, and a very interesting mix resulted in terms of what these countries are today. That's what we wanted to grasp with Humankind – how can we recreate that feeling of recreating the civilisation of your dreams by combining all these cultures that will succeed each other," says de Waubert.

The question is, can *Humankind* bring evolution to a genre already ruled so firmly by its own king: *Civilization*? From what I've seen, it's got a fighting chance of building its own lasting legacy.

Tom Senior

No Straight Roads

NEED TO KNOW

RELEASE
August 25, 2020

DEVELOPER
Metronomik

PUBLISHER
Sold-Out Software

LINK
nostraightroads.com

NO STRAIGHT ROADS

Musical adventures in a world that's hit rock bottom

You know the phrase 'elevator pitch'? An idea streamlined down until it can squeeze into the space between the lift doors closing and opening again? I kind of have to wonder if Kuala Lumpur-based studio Metronomik practised its pitch for *No Straight Roads* while riding all the way to the top of the Petronas Towers.

(And yes, lift pedants, I do realise that the Petronas Towers houses some of the fastest elevators in the entire world, please do not @ me on this.)

The point is: playing the first couple of hours of *No Straight Roads*, I found myself assaulted with a whole lot of premise. You play both halves of rock duo Bunk Bed Junction waiting for their big break. They go on an X Factor-style talent show and, despite winning over the crowd with their robot-smashing musical stylings, get thoroughly disem-Cowelled by the head judge. Not because they just hit robots with their instruments rather than playing a song – that seems to be what's expected of them – but because this is strictly an EDM town, with no room for guitar riffs and non-programmed drums.

Oh, and the record label who runs this show – the 'No Straight Roads' of the title – is also a dystopian megacorp supplying the city with energy they somehow extract from music, like Monsters Inc except with four-to-the-floor bangers instead of screams. (At this point in the elevator ride, you start praying for the mechanism to jam, just for a few minutes.) After witnessing a citywide demonstration of NSR's inequity, the Junction kids decide there's only one thing for it: they're going to have to take down their popstar overlords, by challenging them to musical battles one at a time. Because *No Straight Roads* is (the doors open as you squeak out the last few words of the pitch) a rhythm action game.

ENEMIES ACT ON A LOOP, LAUNCHING THEIR ATTACKS IN TIME WITH THE SOUNDTRACK

SAYU-NARA

Enemies act on a loop, launching their attacks in time with the soundtrack, so you could dodge to safety even with your eyes closed. At least in theory. Because, with the caveat that I possess all the musical ability of a tone-deaf mollusc, I could never quite settle into *No Straight Roads*' groove. The connection between the music and on-screen action feels considerably looser than in something like *Crypt of the NecroDancer*, and your own attacks don't correspond to the track at all. You wait for a gap between attacks, dart in and give your foe the El Kabong treatment, but this doesn't add to the music the way your actions do in, say, *Tetris Effect* – the results are more like tripping over a drumkit while a song plays in the room next door.

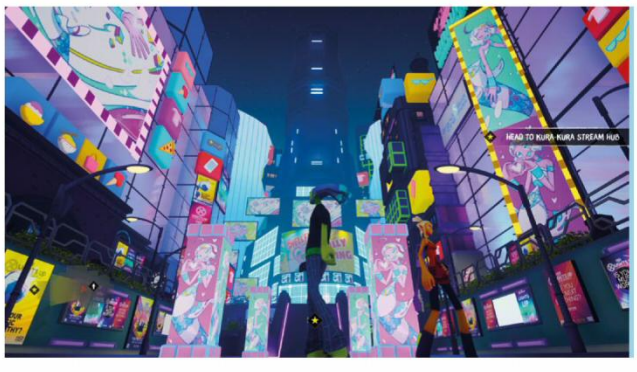
PLAYED IT

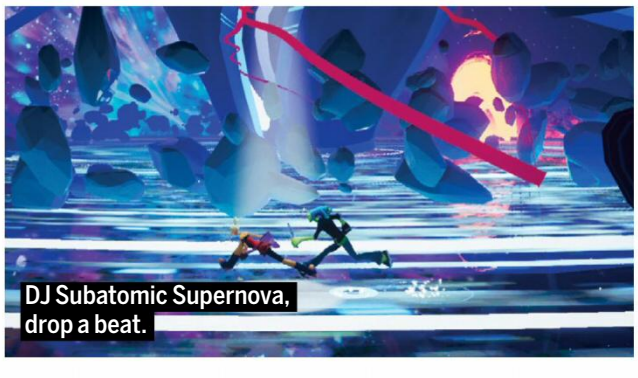
It's hard to hold this against *No Straight Roads*, though, as it motors through concepts and visual delights. Each boss takes on a new genre (all while staying EDM-adjacent). A DJ with a black hole for a head traps me inside a Daft Punk video, as a giant turntable spins beneath my feet and fires disco-ball planets my way. A face-off with a child piano prodigy also means dealing with her protective demon stage-mother, whose giant fists come down in brutal dubstep drops. My favourite is Sayu, an AI pop idol piloted by a team of artists and designers – think Hatsune Miku as a mermaid-themed Megazord.

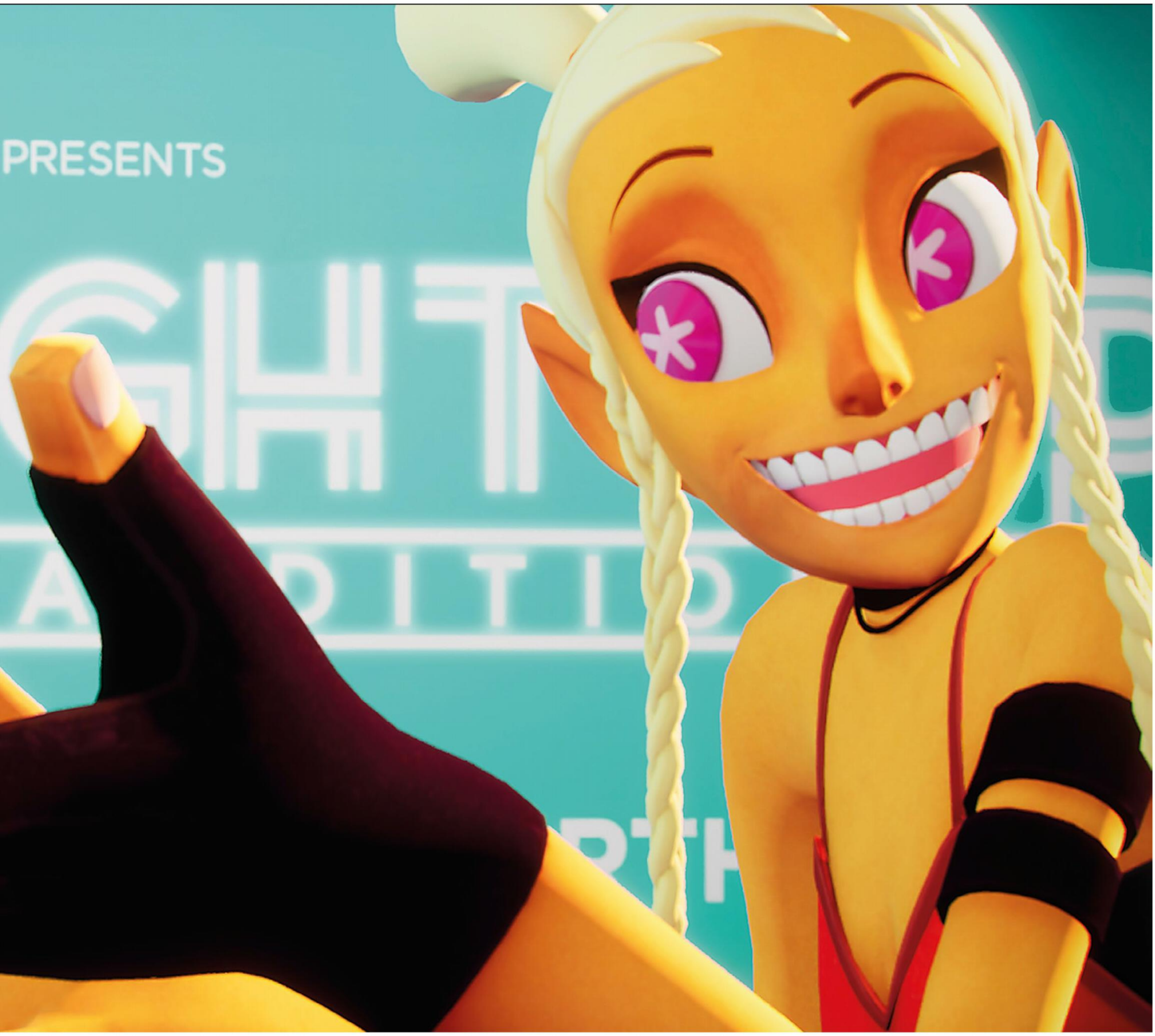
Trailers promise robotic boy bands and a rapper who samples Malaysian music and shadow puppetry. And I'm excited to meet them all, even if current evidence suggests the fights themselves will be slightly off-key. There's no shortage of ideas here – hopefully Metronomik can spend the time before launch tightening strings and tuning them all to perfection.

Alex Spencer

Meet Mayday and Zuke, aka Bunk Bed Junction.

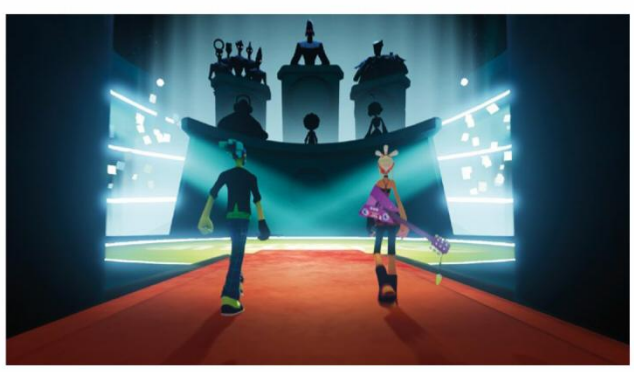



DJ Subatomic Supernova, drop a beat.



You can assign two unlockable special attacks to each character.

Between boss battles you roam around Vinyl City.



The Waylanders

You'll take on more than one god from Celtic folklore.

This formation is a spear attack ideal against big enemies.

NEED TO KNOW

EXPECT TO PAY	DEVELOPER	PUBLISHER	LINK
£30	Gato Studio	In-house	thewaylanders.com

THE WAYLANDERS

An ambitious adventure that may have debuted too soon

This impressively ambitious fantasy RPG, currently out in Steam Early Access, could be the thing to fill that *Dragon Age*-shaped hole in your life. That's not only because former *Dragon Age* creative director Mike Laidlaw held a consulting role – from combat to its dialogue, plenty will feel pleasingly familiar to long-time Bioware fans.

Currently *The Waylanders* promises between ten and twelve hours of content. More of its story, as well as additional character skills and classes, will be added progressively. The version available at launch is in a very rough state, something developer Gato Studio is transparent about. It's so rough I didn't make it past the three-hour mark – inevitably a fatal error would take my game out each and every time. The gameplay itself also needs improving – although you control the camera, it tends to get away from you and is regularly blocked by obstacles. Sometimes your cursor vanishes or things aren't clickable. Animations, cutscenes and voice-over are missing in many places. There are sound mixing issues and freezes. Gato Studio has warned that big future updates may delete your saved games. All in all, right now even for an Early Access game, it feels entirely too soon to start playing.

The environments – such as this underground city – look lovely.

DETHRONE GODS

But *The Waylanders* shows a lot of promise. The plot for one is already intriguing both from a narrative and a gameplay perspective – thanks to a run in with a group of gods, your character briefly dies and become disconnected from fate and even time itself. This makes you able to travel between a Celtic and a medieval timeline. This idea has the potential for all manner of interesting applications, from solving puzzles to changing the relationship between you and your party and even influencing historical events.

The love that went into designing the world is immediately evident even in this early version of the game. The environments are visually stunning – from leafy forests to an underground city with a bustling market, *The Waylanders* is great to look at. Your party companions, too, already feel well-crafted. You meet many of them within the first few minutes, and there's lots of fun in their bickering with each other. You'll find yourself picking favourites in no time.

Combat, which is fully implemented, is a simple affair. As an automatic system in the style of *Dragon Age: Inquisition*, it requires you to do little more than to click on an enemy and wait things out. Each class, consisting of familiar categories such as rogue, ranger, and warrior, has special attacks with a short cooldown time. A unique aspect that combat in *The Waylanders* has going for it are formations — choose a formation leader, add the rest of your party, press F, and everyone will act together as a group with a new, unified health bar. By building a protective shield wall or becoming a giant golem, you're able to harness the strengths of your group. Formations differ depending on who you've picked as leader of the formation. It's a fun idea, but finicky enough to execute that you need to decide on a formation prior to a battle.

I'm most interested in *The Waylanders*' worldbuilding. Steeped in Celtic folklore, things are already more interesting than in your standard elves-dwarves-humans setup. You'll witness political and religious changes and make decisions that will influence the course of the narrative – again, it's nothing if not ambitious. If everything comes together as the developer hopes, the payoff will be great, but I'd give it some time before diving in.

Malindy Hetfeld

EVEN FOR AN EARLY ACCESS GAME, IT FEELS ENTIRELY TOO SOON TO START PLAYING

PLAYED IT

LOGISTICAL NIGHTMARE

Hideo Kojima's hiking sim **DEATH STRANDING** has finally ambled onto PC, where it truly belongs.

By Jeremy Peel

MAIN ENTRANCE
CONFINED SPACE

The package was unusual. Most deliveries prior to this one had been inorganic, or at least fossilised. Fresh fish? That was an extravagant request in a time when logistics was life-and-death; the last restaurant a bombed-out husk ruled by angry, horrifying ghosts.

But Heartman, the serial heart attack sufferer living on a heart-shaped lake in the heart of *Death Stranding*'s mountainous region, is an extravagant man. And so I wedged the case flat between the folded ladders and climbing anchors on my back, placed my feet flat against the ground, strongly pushed up from my knees and off I went.

The route, starting out at the bunker of a biologist living two peaks south of Mountain Knot City, was treacherous. The thick snow sapped energy and hung in the air, creating whiteouts that made cliffs and ravines all but invisible. For once, though, the weather could work to my advantage, keeping the fish cool and fresh – or so I thought.

Minutes later, warning lights began to flash on my backpack. The cargo was deteriorating. With a firm footing and no enemies around, high temperature was the only possible

TOP: Freeways are a communal project and source of personal pride.

LEFT: Fragile is one of the many literally-named characters in the game.

RIGHT: The PC version includes exclusive *Half-Life* themed items.

PROFILE

Hideo Kojima

Created the *Metal Gear* series over nearly 30 years at Konami. Now heads up his own studio, Kojima Productions.

“SINCE THE CONCEPT EXISTED ONLY IN MY MIND, IT WAS VERY DIFFICULT TO CONVEY TO OTHERS”

explanation for the damage. So began a frantic troubleshooting operation: could a change in elevation be responsible? Was the friction from my zipline wire giving off heat?

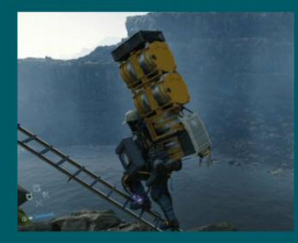
Then Sam Porter Bridges rolled his shoulders, waving the culprits in my face: thermal pads. I’d essentially been walking around with some hot water bottles strapped to my arms. The very tools that had kept me safe and warm in the mountains were now destroying my cargo, melting the ice in my cases and prematurely frying the damn fish.

ECHO, ECHO *How to connect with players you can’t see*

HOLLER
Use the ‘shout’ command to yell into the wilderness, and sometimes it’ll yell back at you.

LIKE
Show appreciation for a well-placed bridge and those points will boost the creator’s ‘like’ total.

BUILD
Pool together enough resources to lay down shared roads or upgrade player buildings.



RECYCLE
You can break down tools for their materials – or leave them in a communal locker for the needy.

TRUDGE SIMULATOR

I’m telling you all this to convey one thing: *Death Stranding* is a simulator. It’s a fact that, in the year since Hideo Kojima’s latest game was released on the PlayStation 4, you’d be forgiven for missing. After all, the Japanese auteur describes it as a ‘strand game’, the first of its kind. “At the very beginning of the project, since the concept existed only in my mind, it was very difficult to convey to others,” he tells us. “Even to the staff at the studio.”

Now that it’s come to PC, though, I don’t think players will struggle to grasp what *Death Stranding* is. On Steam, it can comfortably share a tag with a whole genre of other games.

If you’ve played *Snowrunner*, you already have an intimate relationship with the earth beneath you. You’re used to plotting paths to ensure as much solid and level ground as possible. If you’ve ever been soothed by *Truck Simulator*, you’re familiar with the zen found in a long and frankly boring journey from A to B. Former mayors of *Cities: Skylines*, meanwhile, know the allure of a freshly-laid road all too well. Logistics and infrastructure; these are the twin obsessions of *Death Stranding*, too. It’s not just a game that’s come to the PC, but a born PC game.

PERSONAL KOJ-PUTER

That’s a surprise, given that Kojima has almost become a mascot for the PlayStation brand – his legacy and reputation tied to Sony’s consoles since the very first *Metal Gear Solid*. In an age before multiplatform releases were commonplace, consoles were a distant land, a separate culture. PC gamers played *Thief*, not

“ON DEATH STRANDING, I WAS ABLE TO SPEND MUCH MORE TIME WITH THE ACTORS”

Metal Gear, and Kojima’s name simply didn’t appear in the pages of this magazine. That’s changed, though – and so has the designer’s view of who his audience is.

“I wanted to make a completely new game, and more than anything I wanted to make it for my fans,” he says. “But I also wanted to avoid targeting just one specific audience. My hope was that many people would play this game, whether they were gamers or non-gamers, or perhaps film fans as well.

“Since this is quite different from my previous games, it was a challenge to create a game that was both totally new but also something that people expecting something similar to my older work could still play and enjoy.”

TAKE A HIKE

There are certainly hangovers from the *Metal Gear Solid* series in *Death Stranding*: not least the stealth segments and the daft, systemic quirks that come with them. You can crouch in the long grass to avoid detection by cargo thieves, for instance, but if the teetering stack of cases on your back exceeds the height of the brush, you’ll be spotted.

WORKING TITLE

The daftest names in Death Stranding

DIE-HARDMAN
Continued existence is hardly a distinguishing feature among the living.

HEARTMAN
Named after his faulty ticker. If that’s the rule, you can call me Kneesman.

JAKE WIND
Runs the wind farm. Any flatulence issues are undisclosed in-game.

Yet the core of the game isn’t action, it’s hiking. The most satisfying sojourns in *Death Stranding* aren’t the ones that produce anecdotes – the times when your boots wear out and you stumble, tipping your load into a river which promptly carries your parcels downstream to a new, organic destination. Instead, they’re the journeys where absolutely nothing of note happens – when you prepare accordingly, check the weather to avoid case-rusting timefall, and pack just enough tools to smooth over the challenges in the terrain. If there’s a power fantasy at work, it’s one where you become the kind of person who remembers to pack a flask of tea and some sandwiches before heading out on a long walk.

Death Stranding imagines a rambling trail as a kind of MMO – one where the questline is defined by the steps of thousands who’ve come before – and extrapolates from there. While you explore its Icelandic landscape alone, the game throws in bridges, roads and ziplines placed by other players – and by ‘liking’ them, you can ensure they’re seen and used by others too. It’s a feat of democratic level design that Kojima had a hard time selling his colleagues on.

TO LIKE AND BE LIKED

“I was initially told by a staff member that having ‘likes’ as the main concept would never work,” he remembers. “Players would need another reward system like money or points to make it appealing. However, as we began developing the game further and saw the concept come together in a tangible form, everyone started to understand my original intention. From that point on, the development process went much faster.”

That's not to say that *Death Stranding* universally benefits from Kojima's auteurship. Just like his Twitter account, the game seems to value celebrity above all else – filmmakers Guillermo Del Toro and Nicolas Winding Refn lend their likeness to two principal characters, while many other unseen actors provide their voices and movement. It's like a bizarre echo of Old Hollywood musical casting.

"The level of technology used to create games is now very high," Kojima says. "Most characters are created from 3D scan materials that have been taken from real people. On *Death Stranding*, I was able to spend much more time with the actors, which helped us form strong relationships and mutual trust."

Death Stranding's multitude of cutscenes are state-of-the-art, and its central performance from the grizzled Norman Reedus is suitably earthy – a grounded element to cling onto amid the floating whales and babies in jars. But they're let down by lore that's difficult to follow, and dialogue that's characteristically clumsy and overlong – just wait until you get to the final cutscene...

GOOD MOOD

What's beyond reproach is the atmosphere, which is thick and potent. It's this mood, ultimately, that elevates *Death Stranding* above even accomplished peers like *Snowrunner*, granting the game a fractured beauty and sense of gravity. People in this world need those deliveries and without your infrastructure, the world will collapse.

Death Stranding might be the strangest logistics sim on the market, and the loneliest MMO around. But it's also a PC game, right down to the bone. And as for Hideo Kojima? Well, he's one of us now. ■

TOP: Sam Porter Bridges suspects accessible VR is still years away.

RIGHT: These enemies, Mules, are former posties addicted to the rush of collecting cargo.

LEFT: Your private room offers real respite from the horrors outside.

PC GAMER

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THE TOP 100

THE BEST GAMES TO PLAY RIGHT NOW

Welcome to the official and definitive PC Gamer Top 100 list for 2020. This reflects the tastes and experiences of our entire team, from the big boss man all the way down to the lowliest word-grunt. We're not claiming these are the best games of all time, mind – that's a different list entirely. These are our recommendations for the best games to play right now, from modern smash hits, to indie gems you might have missed, to retro classics that still hold up in 2020. Enjoy!

PERSONAL PICK

James Davenport

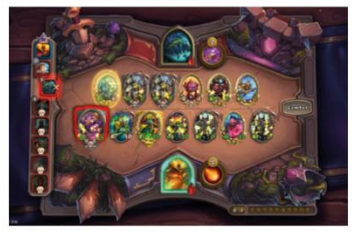
HYLICS 2

As a Wayne of some importance, it's up to you to stop the reconstitution of Gibby so everyone can get back to slapping bugs. I'm still not sure what *Hylics 2* is about, but that's kind of OK. An absurdist RPG made of 3D-scanned clay models, it plays like a long-lost RPG from the 1970s.

100 TEAM FORTRESS 2

RELEASED 2007 | **LAST POSITION** New

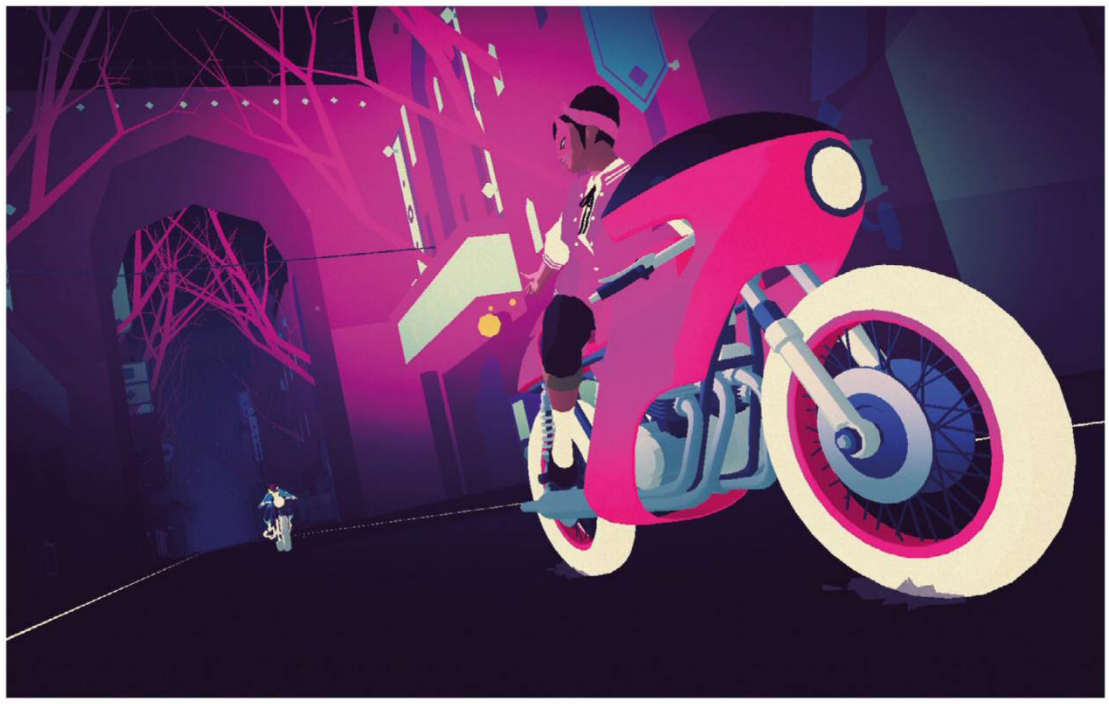
Phil: It's true: *Team Fortress 2* is still good. Sure, it's 13 years old. And yes, it's gone through many changes – from hats to matchmaking. But for all the many hero shooters released in its wake, no other multiplayer FPS offers the same pick-up-and-play hilarity of a good *TF2* server. As an experimental sounding board of games-as-a-service ideas, the current *TF2* is weird and baggy. As a game about nine idiot characters competing over patches of gravel, it remains a triumph.



99 HEARTHSTONE

RELEASED 2014 | **LAST POSITION** 90 ▼

Tim: Your view on the current state of *Hearthstone* depends on how you feel about three things. 1) The release of the new class: Demon Hunter. 2) How much you like super high variance cards like Dragonqueen Alexstraza. 3) Whether you play the Battlegrounds mode. I think Demon Hunter has been a success and helped refresh Standard. I'm less fond of those swing cards. And Battlegrounds is great, providing a welcome distraction when the Standard ladder looks grim.



PERSONAL PICK

Harry Shepherd

JOURNEY

This has long been my favourite videogame, and last year it finally found a home on PC. Enhanced by a majestic score from Austin Wintory, this two-hour epic sees you floating over sand dunes and sweeping through caves to reach a twinkling mountain peak. Pint-sized perfection.

98 SAYONARA WILD HEARTS

RELEASED 2019 | **LAST POSITION** New

Jacob: This artful adventure straddles a line between techno-pop album and rhythm-action videogame. A belter of a soundtrack acts as a heartbeat to the game's meandering levels, and helps to direct you between the many obstacles in your way as you traverse psychedelic forests and high-speed city pursuits – oftentimes following a group of neon-clad bikers or theatre thugs that speak only through the medium of dance.

But beyond its 23 action-packed levels, there's a sense of progression that's far more personal. The game's protagonist starts out her journey by tumbling into an interdimensional highway following a traumatic life event. But it's not long before your masked alter ego is confident, collected and ready to reshape her world. *Sayonara Wild Hearts* is just as much a message of self-love as it is a musical journey. It takes roughly only an hour and a half for a single playthrough, yet like any good album you'll be wanting to come back again and again. If not for the achievement of reaching gold rank in every level, just to breath in the audio-visual experience. There are few videogames that are so wonderfully engrossing as *Sayonara Wild Hearts* with as little screen time – set aside an evening and lose yourself in it.

THE TOP 100

97 METRO EXODUS

RELEASED 2019 | **LAST POSITION** New

Andy K: It's an amazing, and strange, feeling leaving the claustrophobic gloom of Moscow behind and exploring the wider world in a *Metro* game. *Exodus* is a post-apocalyptic road trip that massively broadens the scope of the normally tunnel-based series. It's still the same game deep down, mixing scrappy, violent first-person combat with exploration and survival elements. But dramatic changes of scenery and bigger, more open maps, including a vast desert region, give the series a new lease of life. It also has a lot of heart; particularly aboard the Aurora, the train that's ferrying you and your friends across the wasteland. Here things get slower and quieter, letting you get to know your companions, and yourself, as you search for a better life in a shattered world.

96 SUPER HOT VR

RELEASED 2017 | **LAST POSITION** New

Graeme: This time-sensitive action-puzzler is proof high resolution textures and intricate animation aren't necessary for maximum immersion. For a bunch of shapes in a white void, the sense of presence as your dodge enemies is incredible – it's easy to forget the vague architecture around you isn't real. More than I'd like to admit, I've curled into a ball on the floor to avoid attacks, then tried picking myself up by leaning on objects that aren't actually real. Any game that leaves you crumpled in a heap on the floor is either very bad... or very good!

Time moving with your body movements is a top 'you are the controller' experience, too, showing good VR games aren't just the games you know but with a thing strapped to your head.

95 SLUDGE LIFE

RELEASED 2020 | **LAST POSITION** New

James: It's *Pokemon Snap* by way of *Marc Ecko's Getting Up* (now there's a franchise that really took off...). It's a first-person parkour sim full of dejected, piss-poor bottom feeders like me. Every frame is a photo ripped from a zine, every line of dialogue a potent zinger worthy of its own comic panel. Eat banana slugs and trip hard, float into the sky or under the sludge for a peek at reality. Spit into a CEO's food. Trigger a nuke. Walking sims certainly have come a long way, baby.

THE TOP 100

94 VALORANT

RELEASED 2020 | **LAST POSITION** New

Tyler: In our Top 100 meeting, Emma said that *Valorant* only made her want to play *CS:GO*. It's the opposite for me. Whenever I've tried to play *CS:GO*, it's felt like wandering into someone else's decade-old game of make believe – and no one will explain the unwritten rules to me. However, after just a few games of *Valorant*, I finally understood what my *CS:GO* friends had been talking about. It might be a watered down *CS:GO* to veterans like Emma, but for me, the quality of life features and special abilities, which let me at least feel useful while I got used to the weird shooting, were the on-boarding I needed. Now I can finally enjoy a type of FPS that always scared me away, and it rules.

93 THE JACKBOX PARTY PACK 4

RELEASED 2017 | **LAST POSITION** 88 ▼

Robin: The *Jackbox* series is pure social lubricant. The right game deployed at the right time can make any party or gathering sing – whether you're with friends, relatives, or even people you don't know too well yet. And the simple mobile phone interface – with no app download required – means that anyone and everyone can get involved.

James: I didn't really know my mum until we played some *Jackbox* together. A preacher's daughter with a pretty clean no-cussing and no-vulgarity record, through the medium of *Jackbox* I've seen her draw dicks, make jokes about my death, and use words my dad swears he didn't teach her. It's a holiday tradition now, watching the person that raised me transform like this. Thank you, *Jackbox*.

92 FINAL FANTASY XII: THE ZODIAC AGE

RELEASED 2018 | **LAST POSITION** 64 ▼

Wes: *FFXII* has the best English voice cast in the history of JRPGs. Square rounded up a group of British theatre actors and their performances still crackle with Shakespearean grandeur.

Andy K: There are so many beautiful, exotic locations in *FFXII*, I'm constantly finding new favourites as I traverse its world. There's a lot to love about the game, but the gambit system is an easy highlight. And you can fast forward through battles in the PC version – a massive time saver.

91 DEUS EX

RELEASED 2000 | **LAST POSITION** 72 ▼

Phil: The Top 100 is a celebration of what's worth playing today, which is why many older favourites struggle to make the cut. It's not enough for a game to be influential if it's no longer much fun to play. The difference with *Deus Ex*, though, is that so much of what makes it great is tied to its age and antiquated, alienating systems. It's a game that I don't think could be made today, because the rules for FPS design are too formalised and streamlined. The original *Deus Ex* feels experimental and wild, the consequence of a development team that had to figure out how to let a player do what they want. Within that folly lies a magic that is yet to be replicated.

Andy K: Yeah, *Deus Ex* is still great. I've played it at least once a year for as long as I can remember, and every time I do, I'm stunned by how fun it still is. A lot of that comes from being familiar with the game, knowing how far I can push its systems. But that's really the beauty of it. It's as wide as it is deep, with big, intricate sandbox levels that are ripe for experimentation. Even now I'm finding new ways to play through it. This year it was the discovery that I could defuse the hostage situation in Battery Park, non-violently and without being detected, with a couple of flares and nothing else. I think that *Deus Ex* is PC gaming at its best.

90 C&C REMASTERED COLLECTION

RELEASED 2020 | **LAST POSITION** New

Andy K: Collecting the first *Command & Conquer* and its beloved sequel, *Red Alert*, this generously priced package is stuffed with some of the finest real-time strategy on PC. The remaster is great, with crisp new visuals and the option to instantly swap back to the old ones at the push of a button. But the real reason to play is the campaigns. Every mission is a satisfying puzzle to solve, rewarding creative use of the game's varied selection of units. And the FMV cutscenes are as fun as ever.

89 LEGEND OF GRIMROCK 2

RELEASED 2014 | **LAST POSITION** New

James: It's not surprising that the most *Dark Souls*-y game I've played in a while is basically its origin story. First-person dungeon crawlers like FromSoftware's *King's Field* don't get much play these days because, well, they're a dated pain in the ass to manoeuvre. *Grimrock 2* is a perfect modernisation of the genre, a frictionless, massive sprawl of puzzles and demons and dungeons that practically demand a graph paper notebook. But you don't need one because the notebook is baked in.

88 DOOM II

RELEASED 1994 | **LAST POSITION** 78 ▼

Chris: This isn't just nostalgia talking – yes, *Doom II* is an influential classic, but it's still amazingly challenging and intense to play today, and not just as a history lesson. Though you will get to see the early origins of FPSes too. Plus, new *Doom II* mods are turning up on a weekly basis 25 years later. It's the one game you should never uninstall.

87 FALLOUT NEW VEGAS

RELEASED 2010 | **LAST POSITION** New

Robin: Sure, in the harsh light of 2020, *New Vegas* doesn't look or play all that great. It kind of didn't in 2010 either. But even now it's absolutely unparalleled when it comes to pure RPG freedom. The sheer amount of choice in who you can be and what you can do is intoxicating. It's a kind of depth and complexity that Bethesda's *Fallouts* just can't match.

86 SHADOW TACTICS: BLADES OF THE SHOGUN

RELEASED 2016 | **LAST POSITION** 84 ▼

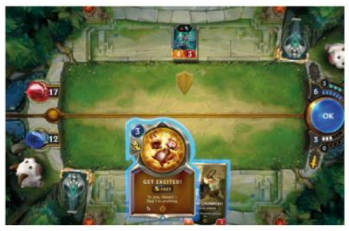
Fraser: *Shadow Tactics* is Mimimi's best stealth tactics game and a high point for sneaky, murderous romps. It takes the classic *Commandos* formula, conjures up even more elegant puzzles, refines everything, and gives you an adorable tanuki to help with your assassinations.

THE TOP 100

85 HOMEWORLD REMASTERED COLLECTION

RELEASED 2015 | **LAST POSITION** 83 ▼

Fraser: No other RTS – heck, few other games – come close to matching *Homeworld*'s incredible style. The art, the soundtrack, the tragic sci-fi yarn – it's so lavish. Even the way the ships move is stirring. It's like watching a cosmic ballet. It's all so impressive that it threatens to overshadow the fact that *Homeworld*'s also a brilliant strategy game with a tricky, persistent campaign and the best space battles around.



84 LEGENDS OF RUNETERRA

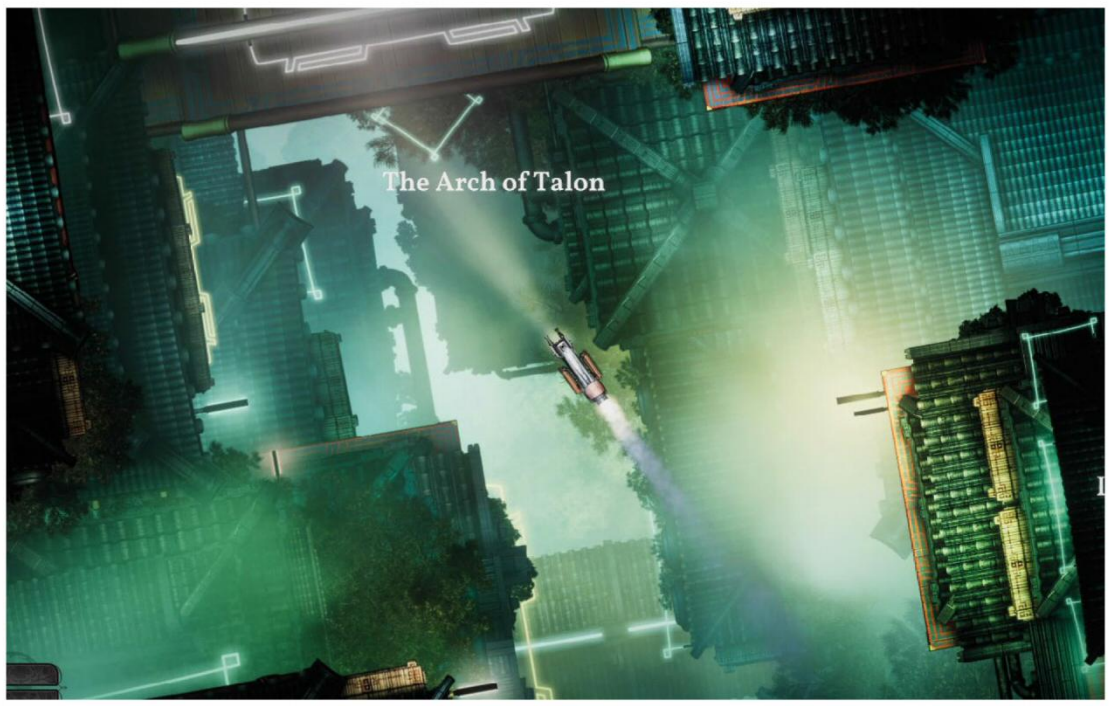
RELEASED 2020 | **LAST POSITION** New

Robin: I love how much of a step forward for online CCGs this feels. That applies to the mechanics – where the best bits of *Hearthstone* and *MTG* are combined into a tight, strategic back-and-forth – but also to its business model, which does away with randomised packs and, brilliantly, just lets you build the decks you want to build.
Steven: Agreed. *Runeterra* is a welcome reprieve from booster pack bullshit. I never thought one of my favourite games of 2020 would be a card game.

83 ELITE DANGEROUS

RELEASED 2014 | **LAST POSITION** 82 ▼

Andy K: This recently became my most played game on Steam, overtaking the likes of *The Witcher 3* and even my beloved *Euro Truck Simulator 2*, which should give you some idea of the impact it can have on a person's free time. I don't so much *play Elite Dangerous* as exist entirely within it, living a whole other life in space. It's a worryingly immersive game, whether you're hunting bounties, trading, or just freely exploring its scale replica of the Milky Way. Sure, it's grindy, and it's slow-paced, but the feeling of *being* there, of clawing a living out of a vast galaxy alongside thousands of other players, is a sci-fi dream come true. It plays totally fine with a gamepad, but for the truly dedicated starship captain, a flightstick really takes the game to another level.

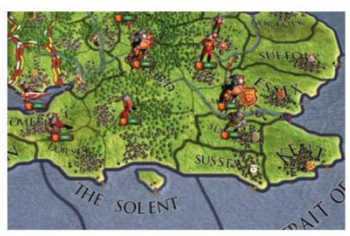


82 SUNLESS SKIES

RELEASED 2019 | **LAST POSITION** 45 ▼

Fraser: A very British game about travelling through space on a little locomotive might have been horribly twee in another studio's hands, but not Failbetter's. It's a mad and magical version of Victorian Britain transposed to the cosmos, where Queen Victoria has weird time powers and people live on floating chunks of rock – surprisingly picturesque ones – or massive space plants or steampunk metal behemoths. It makes space properly alien again, filling it with demons who were once bees, plenty of gothic horror, and, appropriately, a clockwork sun, all of which could drive your crew insane at any moment – and all these oddities are elevated by some of the best writing in games ever.

Robin: *Sunless Skies* is a game that operates entirely by its own logic – making progress feels like learning a language, a very particular way of talking about objectives and circumstances. It can be awkward to get to grips with, but it facilitates a world where loot is as likely to be a life-changing experience as a shiny treasure, and dreams can be earned and traded like currency. From its writing, to its art, to its mechanics, to its sometimes punishing cruelty, it's a game that 100% knows what it is and refuses to water that down, and I respect the hell out of that.



81 CRUSADER KINGS II

RELEASED 2012 | **LAST POSITION** 41 ▼

Fraser: There's still nothing else quite like *Crusader Kings II*. Over the years Paradox has fleshed out its already gargantuan strategy RPG through dozens of expansions with changes both bold and granular. You can even dabble in witchcraft now. Its scope is ridiculous. And since all of those expansions came with even larger free updates, the base game hasn't stopped growing. It's also now entirely free. It may soon be supplanted, though, as its sequel is on the horizon.

80 80 DAYS

RELEASED 2015 | **LAST POSITION** 77 ▼

Andy K: In terms of writing, *80 Days* is one of the finest pieces of interactive fiction on PC, because it roots its superb storytelling in a compelling management loop. You're being told a fun, colourful story about a voyage around the world in a steampunk alternate history, but you're also juggling your budget and keeping your stoic master Phileas Fogg happy. Completing the journey in 80 days is difficult, but if you fail, it doesn't matter. You can try again, and the story will be totally different.

PERSONAL PICK

Phil Savage

GUILD WARS 2

Its combat is punchy and satisfying, its community is helpful and engaged, and its approach to levelling makes it easy to get involved in any of its regular updates. Many live service games would be improved if they took inspiration from *Guild Wars 2*'s model.

PERSONAL PICK

Rachel Watts

IF FOUND...

Dreamfeel's coming-of-age visual novel has gut-wrenching authenticity. It follows a trans woman's return to her hometown during the '90s, having to deal with the troubles of being a young queer adult. It's a story of crushes, concerts, and a black hole that threatens to destroy reality.

79 HADES

RELEASED 2018 | **LAST POSITION** New

Jacob: *Hades* manages to squeeze the fight, rinse, repeat roguelike structure into its narrative, and do so in a way that's genuinely entertaining. Each return trip back to *Hades*' Underworld is a chance to try out a new weapon or upgrade, and that's kept me coming back for more. Especially as the story changes as you go through different runs.

78 SEA OF THIEVES

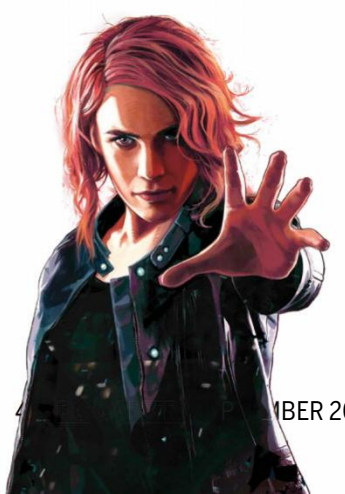
RELEASED 2018 | **LAST POSITION** 67 ▼

Wes: Chris put my fish on the stove and left it cooking so long it set our ship on fire. On the *Sea of Thieves*, we make our own fun, despite it completely hampering our progress for a good while.
Chris: Well, there was also one time that Wes swung his sword at Tyler who was carrying an explosive barrel, and it killed our entire crew. Still fun!

77 CONTROL

RELEASED 2019 | **LAST POSITION** New

Robin: The thing that *Control* absolutely nails is atmosphere. Its weird world of supernatural bureaucracy is so wonderfully realised – both visually, with creative, brutalist surrealism, and in its world-building, fleshed out through dialogue and text logs that are equal parts hilarious and sinister. Even its vending machines are memorable.



76 SPELUNKY

RELEASED 2008 | **LAST POSITION** 37 ▼

Emma: A simple, yet challenging roguelike adventure that punishes you for the tiniest mistakes. It's unique in that it offers a different experience depending on how far you're willing to explore. You're free to simply play through, make your way to Olmec's Lair, and finish the game. While this is perfectly satisfying, there are so many hidden areas and special items to discover that can enrich your journey along the way. It also features the cutest pug in any video game, ever.

75 FACTORIO

RELEASED 2016 | **LAST POSITION** 74 ▼

Chris: Survival and crafting games can quickly become a slog of repetitive tasks, but Factorio's hook involves automating those jobs before you get sick of them. And it's something of a thrill to build the machines to do those tasks... and even more thrilling to realise you can build machines to build those machines. Once you've got a few assembly lines running smoothly it's easy to lose yourself in the glorious (and sometimes very messy) expansion of your busy little factories.

74 WARHAMMER: VERMINTIDE II

RELEASED 2018 | **LAST POSITION** 73 ▼

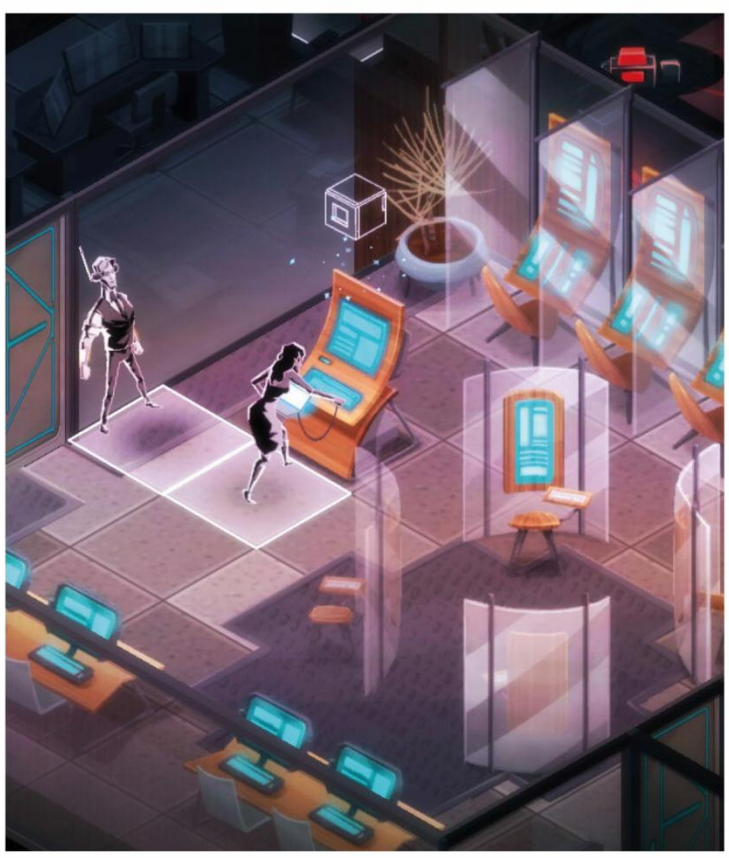
Robin: This year's lockdown has really solidified for me how good this game is. Trapped inside, I've had way more time for co-op gaming, and I think *Vermintide II* really is the best of the bunch – a worthy successor to *Left 4 Dead*. Plus it absolutely nails the Warhammer setting, always riding that line between humour and grimdarkness perfectly.
Jody: I've been enjoying *Deep Rock Galactic* and I still think *Left 4 Dead 2* is fun, but what *Vermintide II* has over other four-player co-op chaos games is its excellent first-person melee combat. It's the perfect quick 'woosh' and slow 'thunk' as big lumps of Renaissance metal bite into fur and skin. You get stuck in and the blood seeps in at the edges of the screen while you block and shove and swing till there's breathing room, then look around to make sure everyone else is standing. Then you do it again 12 more times and it's still fun.
Alan: *Vermintide II* is harsh, but in the best possible way. It challenges you, and then rewards your determination with a better understanding of the mechanics. You get slightly further with each run, gear upgrades embolden you, communication with your buddies becomes more nuanced, and before you know it you're facing down the Skittergate like the team of wisecracking baddasses that you are.

73 WHAT THE GOLF?

RELEASED 2019 | **LAST POSITION** New

Chris: A great way to make people laugh is to surprise them, and *What the Golf?* is almost constantly surprising. Golf is almost never just golf: it becomes soccer, driving, bowling, first-person shooting, archery, and more . And just when you think you've got a handle on things it'll switch it up on you, so instead of your bow shooting an arrow, it'll shoot 100 arrows. Or it'll launch you through the air instead. Just a great, hilarious barrage of gags.

Harry: Unlike real-life golf, Triband's experimental curio is wonderfully accessible. Every person I invited to playwere immediately entranced – the drag-and-click controls are simple and satisfying enough to draw anyone in.



72 INVISIBLE INC

RELEASED 2015 | **LAST POSITION** 71 ▼

Jody: Normally I'm a stickler for first-person stealth. You should be leaning around a corner, holding down Q or E while shifting slightly in your chair for no reason to see if there's a guard lurking there. *Invisible Inc.* makes you look down from above, pressing the peek icon instead, but it's still every bit as tense. Turn-based isometric stealth just as thrilling as the regular kind. *Invisible Inc.* understands cyberpunk as well, piling a miracle on top of another miracle.

Robin: There's something wonderfully swaggering about developer Klei reinventing stealth so perfectly with *Mark of the Ninja*... and then coming back to do it again in a totally different genre, completely nailing it twice in a row. That's true confidence.

71 EVE ONLINE

RELEASED 2003 | **LAST POSITION** 70 ▼

Steven: It's frequently joked about as the best game to read about but never play, but that kind of outlook dismisses just what a unique and special game *EVE Online* is. Sure, it's a very cerebral experience that often boils down to staring at spreadsheets, but that's because it's so good at creating a virtual life that it successfully recreates even the most boring bits of living. Just don't play it alone – this is one MMO where multiplayer is practically mandatory.

PERSONAL PICK

Chris Livingston

WEST OF LOATHING

RDR2 isn't the only open world cowboy game on PC. *West of Loathing*'s art may just be simple stick figures, but the writing is brilliant and it's stuffed with jokes. I played long after I'd finished the main quest, just to make sure I'd found every last scrap of humour.

PERSONAL PICK

Robin Valentine

MORTAL KOMBAT 11

Not just the only fighting game with a genuinely good story campaign, but for my money the most accessible entry into the genre there's ever been. Easy combos, a slower pace and a whole suite of fantastic tutorials make this a gory showdown that anyone can enjoy.

70 WORLD OF WARCRAFT

RELEASED 2004 | **LAST POSITION** 43 ▼

Steven: *World of Warcraft*'s been in a rough spot the last few years, which is why it's slid down a bit on our list. Despite the latest expansion, *Battle for Azeroth*, having a lot of issues that get in the way of what *WoW* does best, this is still a worthwhile and entertaining MMO full of adventure.
Fraser: I've quit yet again. After just coming back, too. But I know it's only going to be temporary, because nothing has ever scratched that MMO itch quite like *World of Warcraft* has done for me.

69 DESTINY 2

RELEASED 2017 | **LAST POSITION** 14 ▼

Tim: Firstly, nice. Secondly, the reason for *Destiny 2*'s precipitous drop largely stems from how little the team likes the current seasonal model. The return of iconic character Saint-14 made *Season of Dawn* fun, and it had a decent new activity and weapons, but *Trials of Osiris* whiffing made *Season of Arrivals* feel really quite anaemic. This September's big expansion, *Beyond Light*, looks promising, with a whole new damage type and accompanying subclasses to play with.

68 WARFRAME

RELEASED 2013 | **LAST POSITION** 27 ▼

Steven: *Warframe*'s last year hasn't exactly been its best. Ambitious updates like the new ship-to-ship combat were dragged down by bugs, poor balancing, and a grind that sometimes feels like a needless distraction. But even in spite of that, *Warframe* remains one of the best looter shooters you can play. It's just so weird and full of strange ideas that have slowly congealed into a shooter where one minute you're bullet-time sliding through a group of super mutant soldiers and the next you're dancing with your friends to a crude version of Darude's Sandstorm that you hand-programmed on the in-game synthesiser. That unique atmosphere keeps *Warframe* compelling even when Digital Extremes' unwillingness to play it safe bites it in the ass. Don't get me wrong, *Warframe* succeeds far more often than it fails. Though it's far more complex than other games, that complexity also creates an enormous amount of depth that's kept me playing for hundreds of hours. Though some might lament the lack of a true endgame, I really enjoy *Warframe*'s horizontal progression that encourages me to set my own goals, like crafting new warframes or unlocking new weapons, and experiment with its vast arsenal. Even if you're not a completionist, *Warframe* is worth playing just for the story.

67 DEVIL MAY CRY 5

RELEASED 2019 | **LAST POSITION** 46 ▼

Jacob: By the end of each *Devil May Cry 5* mission you will have shredded and ripped and crushed wave after wave of the underworld's nastiest hellspawn. While it's firmly rooted in its hack and slash history, a choice of three characters offers new opportunities to nail down precise combos and a varying blend of otherworldly and overly-excessive combat. When you finally mash the buttons just right, you're rewarded with an increasingly edgy soundtrack and a gory crescendo of blood, orbs, and rock organ.

66 HER STORY

RELEASED 2015 | **LAST POSITION** 65 ▼

Andy K: *Her Story* is special because it tells a story in a way only a videogame could. It's a subdued police procedural with a distinctly British sensibility, told entirely out of order. You piece a suspect's story together by digging through a fragmented archive of short interrogation clips, tapping keywords into an old PC to uncover clues about what her story actually is. But the order you find the clips in, which is different for every person who plays the game, can distort your perception of the narrative in interesting ways. The detective story is as old as fiction itself, but *Her Story* is an excitingly fresh take on it. And if you want more, follow-up *Telling Lies* expands on the concept with a larger cast of characters and higher production values.

65 ORI AND THE WILL OF THE WISPS

RELEASED 2020 | **LAST POSITION** New

Emma: Easily one of the prettiest games to release in 2020. *Ori and the Will of the Wisps* is a Metroidvania that's truly rewarding to explore. New abilities are frequently introduced, encouraging you to thoroughly comb every inch of its beautiful map. Engaging in combat with enemies is difficult at first, but as you master your skill set, landing the perfect combo on a tough creature feels glorious. Be warned, its heartbreaking story will play on your mind for some time afterwards.

THE TOP 100

64 FROSTPUNK

RELEASED 2018 | **LAST POSITION** 63 ▼

Jody: 11 Bit Studios' other game, *This War of Mine*, is part of the curriculum in Polish schools now. *Frostpunk* educated me more. For starters, this game about managing a steampunk city through an ice age taught me the value of child labour and religious zealotry.

I enacted harsh policies to keep citizens from freezing but found myself putting the brakes on as soon as I could. Sure, I passed the law allowing children to work because the engines were on the brink of failing. But when I transitioned them away from picking up coal to light kitchen duty, it felt like I was clawing back a society worth living in, scrambling up the hierarchy of needs. It's powerful stuff.

63 BLACK MESA

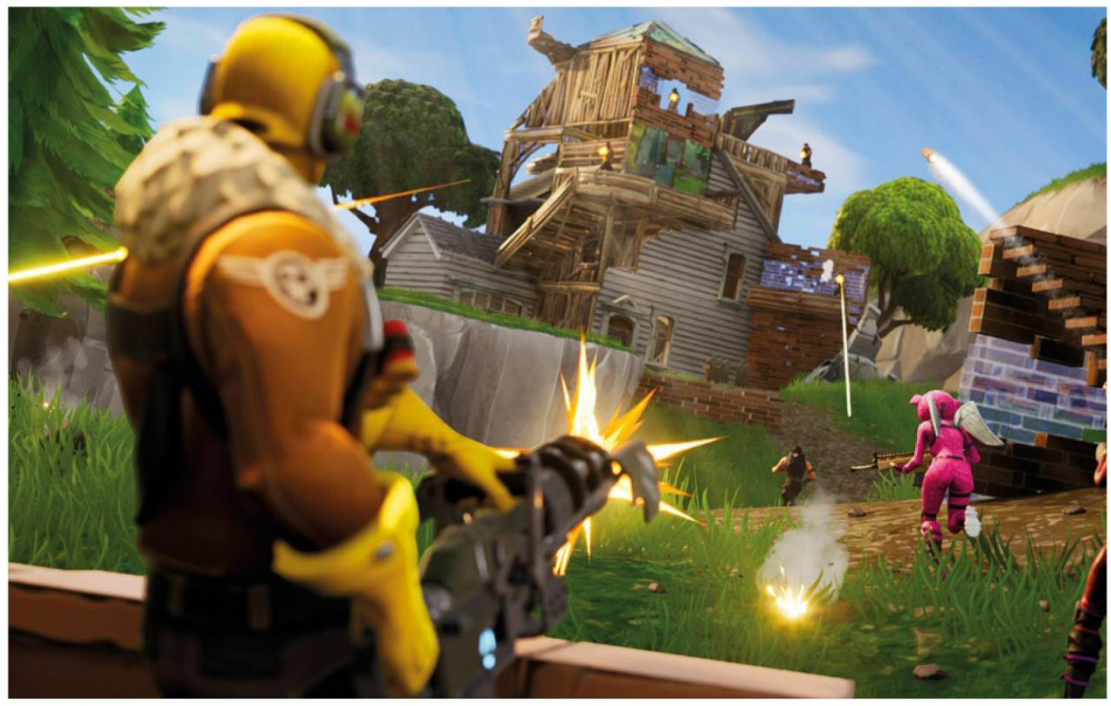
RELEASED 2020 | **LAST POSITION** New

Andy K: This ambitious fan-made remake is probably the best way to experience the first *Half-Life* on a modern PC. It differs from the source material in a lot of ways – particularly the greatly expanded (and improved) Xen chapters – so purists might argue otherwise. But with bigger, more dramatic levels, production values approaching *Half-Life 2*, and new puzzles and set-pieces, *Black Mesa* breathes new life into Gordon Freeman's debut adventure. It's astonishing that something this confidently made is, essentially, a fan project. And doubly so that Valve allowed them to sell it on its own distribution platform. If you've ever felt the urge to return to the Black Mesa facility, this is the perfect excuse to go and reintroduce your crowbar to some headcrabs.

62 EURO TRUCK SIMULATOR 2

RELEASED 2012 | **LAST POSITION** 61 ▼

Andy K: It might not offer the high-speed thrills of *Forza*, but *ETS2* remains one of the best driving games on PC. Not only do its trucks feel great to drive, with weighty, nuanced handling, but its world is absolutely massive. You can drive from the UK to Russia, stopping at Scandinavia, Eastern Europe, and a dozen other countries along the way, which makes it a brilliant road trip simulator. It's also very chill. I always have it installed in case I ever feel the need to hit the road and de-stress.



61 FORTNITE

RELEASED 2017 | **LAST POSITION** 36 ▼

James: In 2020, you could catch a live viewing of Inception inside *Fortnite*. During a time when theatres are closed all over the world, I could watch a movie in a communal space with other people. Travis Scott put on a psychedelic show that drew 12.3 million viewers and doubled as his official music video. Party Royale arrived with its weekly EDM shows and non-violent pub games. Epic turned the damn game off for days *for marketing purposes*.

Fortnite is still firmly embedded in modern gaming culture. It'll be around for the next decade, easily, and remain popular throughout. For good reason, too. It's a COVID-19 era concert and movie venue. It's a creative sandbox filled with thousands of unique, user-created platforming challenges, combat arenas, and escape rooms. It's a base-defence game layered with RPG systems and loot drops for endless replayability. And, yeah, it's still an excellent battle royale shooter that's still surprising me with every seasonal refresh. We've already seen NPC-patrolled spy bases that turn certain areas into tiny infiltration and deception arenas, and now Epic's flooded half the map, transforming every scrap of land into a highly contested hot spot – never mind the sharks sailing through the air to ruin campers. Still free, still fantastic.

60 THE ELDER SCROLLS V: SKYRIM

RELEASED 2011 | **LAST POSITION** 49 ▼

Fraser: *Skyrim* is the forever game, nearly a decade old now and still kicking around. It is very large and very good, but it's really stayed relevant because of the number of mods that its community has churned out. Whole new games have been built out of it, along with a slew of improvements that you shouldn't start your journey without.
Jody: Now that expansion-sized mods like *Legacy of the Dragonborn* are exploring the *Special Edition*'s possibilities, *Skyrim* feels reborn. Dragon-reborn.

59 CAVES OF QUD

RELEASED 2015 | **LAST POSITION** 40 ▼

Steven: A dark horse if there ever was one, *Caves of Qud* is the best RPG you're not playing. It's like *Dwarf Fortress*, except much less daunting and centred on a strange, alien world with some of my favourite writing in games. Each time you play, whole cultural histories are randomly generated for you to learn about as you pick through the dilapidated ruins of Qud's lost civilisations. It's a cerebral, ambitious, and impressive RPG with a humble ASCII-esque art style.

58 STALKER: CALL OF PRIPYAT

RELEASED 2010 | **LAST POSITION** 58

Chris: You'll probably want to mod the hell out of it these days to get it slightly more up to snuff. But even in its vanilla form, it's unmatched in the sense of dread it provides. Most games eventually turn you into a superhero, but *STALKER* never lets you forget you're just a squishy mortal and that an unceremonious death can happen at any second.

57 UNAVOWED

RELEASED 2018 | **LAST POSITION** 57

Fraser: Urban fantasy with a dash of BioWare's companions and consequences, *Unavowed* feels like a reimagining of classic point-and-click adventures. It's steeped in puzzles – most expertly woven into the story – and handsome pixel art, but it also offers more freedom to chart the course of your adventure, giving you authorship over the story.

56 PREY

RELEASED 2017 | **LAST POSITION** New

Jody: *Prey* is a spooky space station game in which you play prop hunt, where any medkit could actually be a spider-monster while you have a glue gun and Nerf darts. It's not just another space station game. It's the ultimate. Arkane didn't remake *Prey*, they made *System Shock 3* and then called it *Prey*.

THE TOP 100

55 SESSION

RELEASED 2019 | **LAST POSITION** New

James: You can play *Session* with classic *Skate* controls. Cool and fine. Or, if you're a maniac like me, you can control each foot with a stick and turn on manual catching and kick strength and spin power to make *Session* into a skateboard *QWOP*. It makes a single flatland, crawling kickflip a pretty big accomplishment, and I'll never be a good virtual skater. But like the early '00s, I'm watching the best of the best begin to emerge from the virtual scene, with players like JAHDexe making legit, unique skate videos. There's even a *Session* collective, Dizzy Skateboarding Co., highlighting the cream of the crop in montages that take me back to the best Girl's Yeah Right or Zero's Misled Youth.

54 RESIDENT EVIL 2

RELEASED 2019 | **LAST POSITION** 29 ▼

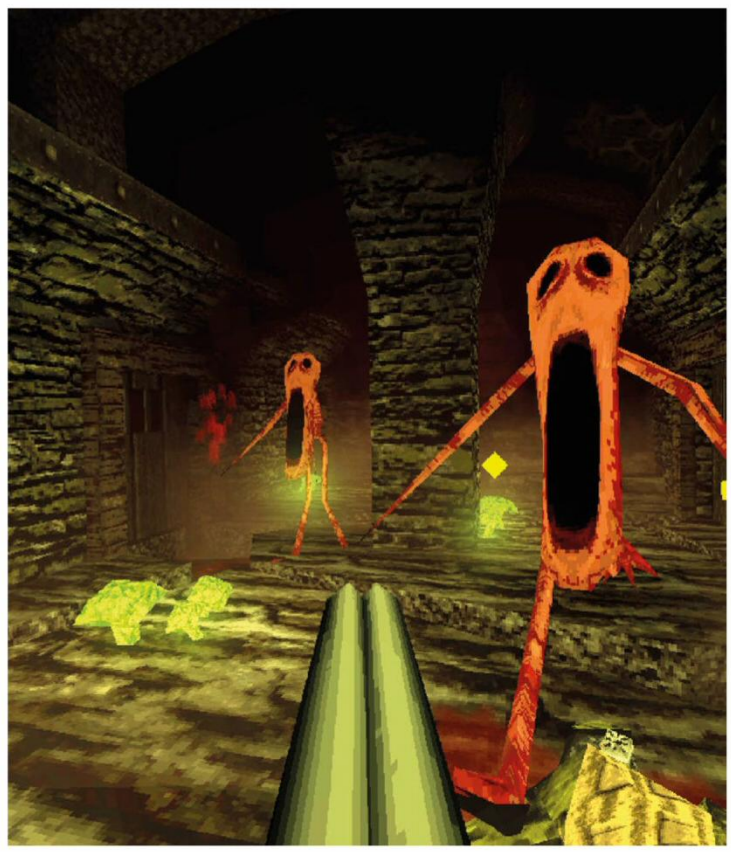
Robin: I never even played the original *Resi 2*, and I *still* adored this remake. It absolutely stands up on its merits as just a fantastic bit of survival horror. It's such a pleasure picking your way through its intricate maps – solving puzzles, finding secrets, and trying not to get eaten. Controversial opinion, though: I could've done without Mr X. He's too mechanical to be scary, but enough of an obstacle to be incredibly frustrating. I just wanted to poke around at my leisure.

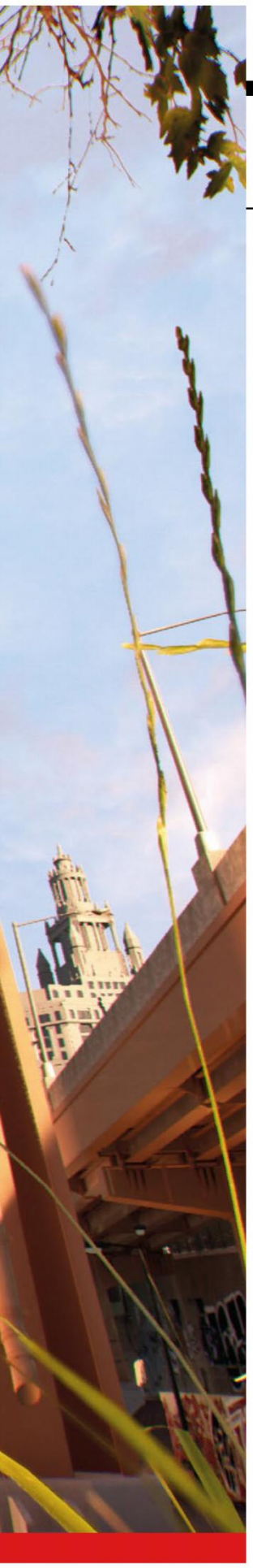
53 DUSK

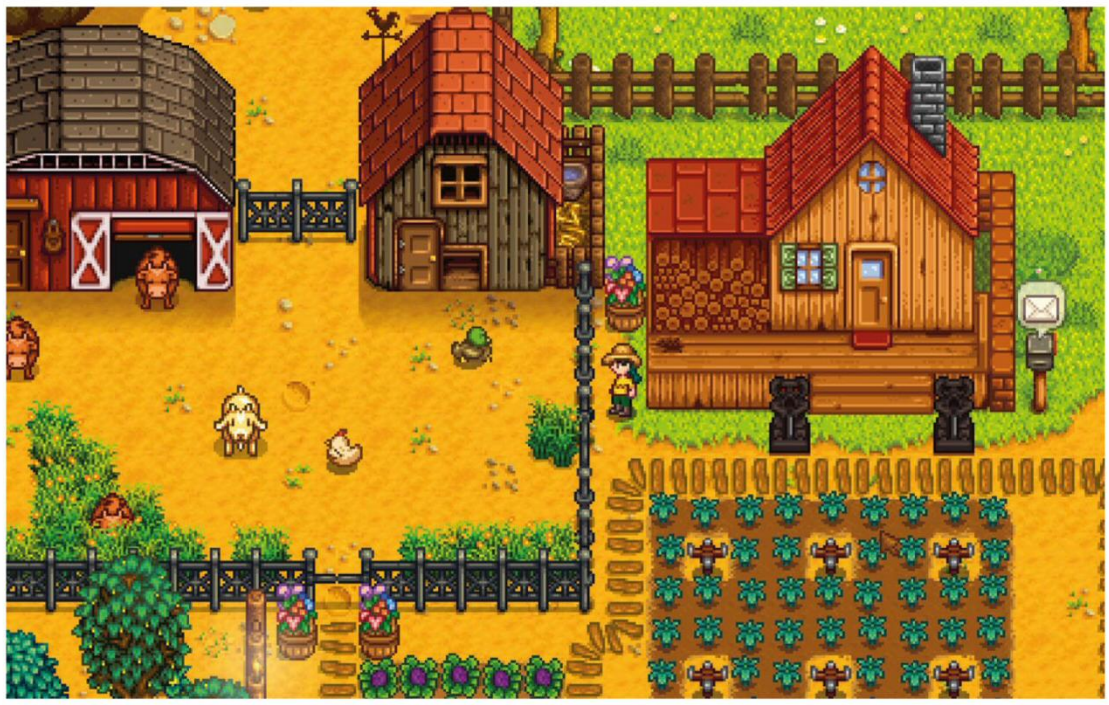
RELEASED 2018 | **LAST POSITION** 53

Tyler: I find *Dusk* to be quite ugly compared to other recent FPS throwbacks like *Amid Evil* and *Ion Fury*, but having been a *Quake* fan, I do get a whole heap of nostalgia from it. And it plays just right if you're fond of the classics: you move as if you're on ice skates and shoot like you're playing a clicker game.

Tom: Even the reload animations are fun in this fond reflection of old-school shooters. You don't even have hands, but you can still spin your floating twin shotguns to magically put new shells into the barrel. The levels travel between B-movie genres, and are actually funny. I've never thought of level design as a medium for humour, but when I head off down a tunnel and suddenly fight a giant alligator for no reason, I can't help but laugh.







52 STARDEW VALLEY

RELEASED 2016 | **LAST POSITION** 52

Rachel: This slice-of-life sim is a pocket of calm, especially in these trying times, letting you escape into a world of simple agriculture. Planting, nurturing, and harvesting crops is a gentle process, and getting to know the personalities and quirks of the residents in Pelican Town breaks up your farming jobs nicely. You can build any type of farm you like, from a profitable vegetable empire to a cosy barn with a few flower patches. Being plonked on a huge empty lot might seem a little daunting, but once you settle into a routine the seasons will fly by.

Seeing the money roll in from your epic shipment of green beans after nurturing them for ten straight days is a feeling like no other – almost as good a rush as reaching a new level of friendship with one of the town's inhabitants and uncovering some new aspect of their story. Getting to know the community and learning about the underlying magic of the town always gives you more to discover. *Stardew Valley* is both a blessing and a curse: it's so peaceful, it will make your heart ache for the tranquility of the countryside.

Fraser: I get to live out the fantasy of not killing every plant I try to grow and the fantasy of having a thriving social life. I cannot recommended this highly enough for plant-killing hermits.

PERSONAL PICK

Andy Kelly

L.A. NOIRE

This lavish replica of 1940s Los Angeles is a dream for anyone who's ever watched a film noir or read a Raymond Chandler novel and wished they could *be* there. And a cast of genuinely great actors (including several familiar faces from Mad Men) really brings the story to life.

51 PATH OF EXILE

RELEASED 2013 | **LAST POSITION** 50 ▼

Steven: Quarterly expansions continue to reinvent the base game in strange, exciting new ways. Its current expansion lets you tend a garden by planting seeds that grow monsters for you to kill for loot. It's so weird, but I love how consistently *Path of Exile* makes clicking on things until they die fun. I've only scraped the surface of its more complex systems and endgame, and frequent updates have kept it from ageing. This is still the king of ARPGs.

50 GRAND THEFT AUTO V

RELEASED 2015 | **LAST POSITION** 39 ▼

Chris: It's been long enough that I've forgotten most of the details of the 40-hour story, but who cares? *GTA V* remains a glorious sandbox of destruction and mayhem, even without a story. You can grab some friends and go bananas in *GTA Online* together, or go on a reckless stunt-driving and plane-stealing spree alone in single-player. Thousands of mods keep it fresh, but it barely needs them. And I will keep happily playing *GTA V* until the next one comes along.

PERSONAL PICK

Jacob Ridley

FLORENCE

A beautiful snapshot of falling in, and drifting out of, love. It's delivered through simple interactions – each puzzle is intrinsically tied to Florence's thoughts and feelings. But even beyond its affirming story, the game offers a vibrant art style brought to life by wonderful music.

49 OPUS MAGNUM

RELEASED 2017 | **LAST POSITION** 48 ▼

Tyler: A brilliant puzzle game. Each level is a condensed factory-building problem with many solutions, but only some are elegant enough to feel satisfying. It's the only puzzle game where, after finally solving a level, I've refused to move on to the next one because I knew I could solve it better. And that is one of its major appeals – getting better.

48 MINECRAFT

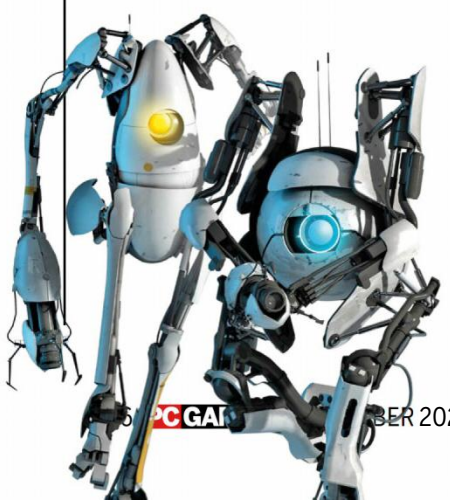
RELEASED 2009 | **LAST POSITION** 47 ▼

Rachel: The ultimate digital playground for creativity. This blocky sandbox has inspired a whole generation of players, from kids to an industry of professional builders. Projects like the Uncensored Library, the charity Block By Block, and hundreds of other initiatives prove that *Minecraft* is a gaming force for good.

47 PORTAL 2

RELEASED 2011 | **LAST POSITION** 30 ▼

Wes: The funniest game ever written? Likely. More importantly, *Portal 2* is the finest example of the Steam Workshop's success, with a near-infinite selection of user-made maps. I played the campaign once, but many more weekends with a co-op friend, hungry for new puzzles to punish our brains with.



46 ROCKET LEAGUE

RELEASED 2015 | **LAST POSITION** 25 ▼

Tyler: You don't hear much about *Rocket League* these days, but you don't hear about bowling, either, and people haven't stopped playing that. As other competitive games come and go, *Rocket League* remains an immovable pastime. It isn't just because 'soccer, but with cars' was a novel idea. Others have tried to replicate *Rocket League* and have failed because they lack the subtle controls that enable fake outs, trick shots, and passing plays. After 1,000 hours, I'm still trying to air dribble properly.

45 CIVILIZATION VI

RELEASED 2016 | **LAST POSITION** 44 ▼

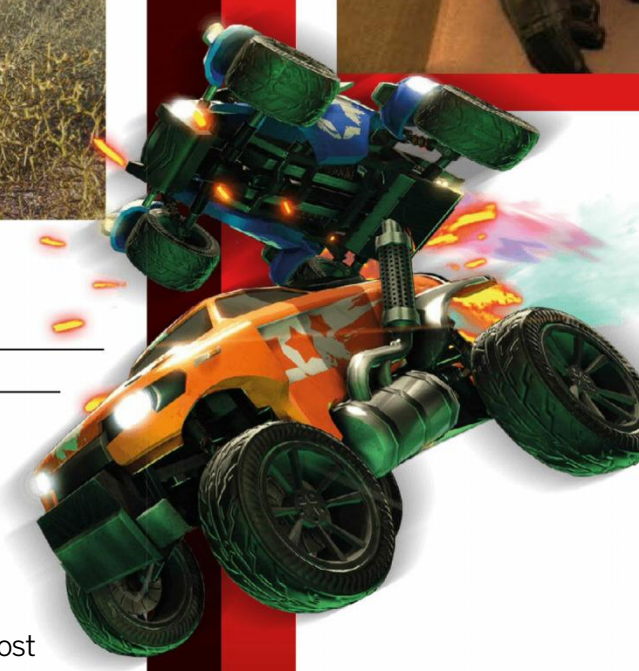
Fraser: *Civ* typically gets two expansions before the focus shifts to the next one, but *Civ VI* is unexpectedly still going. It's definitely shaping up to be the densest of the 4X series, with more civs and scenarios still coming, and with the big changes the base game made to cities, and the expansions' interesting experiments with golden ages, dark ages, and climate change, it's another strong entry in the immortal series. And now you can also convert cities with rock bands.

44 ARMA 3

RELEASED 2013 | **LAST POSITION** 42 ▼

Fraser: A serious, daunting military sim that conjures up an infinite supply of agonisingly tense sniper duels, convoy ambushes, night-time raids and all-out battles. But for extended lengths of time it's horrifyingly quiet, full of long build-ups as you crawl through undergrowth, nervously dash through exposed areas, and constantly keep an eye out for any signs of life. And then there's the crackle of gunfire, or a sniper's shot echoing through a valley, and you're diving behind cover, trying to figure out where it's coming from. Instead of being a gun on legs, you're a vulnerable soldier, but also a flexible one. You can quickly shift between different horizontal and vertical stances, giving you a great deal of fine control over your body. Usually it's a treat to be able to just go prone, but *Arma 3*'s got an absurd nine stances. So even when it's at its most stressful, you'll always feel in control, empowered by a long list of options, as well as fancy military toys.

But that's just one facet of a much larger creative sandbox. Thanks to an army of modders, *Arma 3* can be pretty much anything. Even its official DLC takes things in unexpected directions, like go-karting or an entire campaign dedicated to first contact with aliens.



THE TOP 100

43 METAL GEAR SOLID V

RELEASED 2015 | **LAST POSITION** 21 ▼

Jorge: Hideo Kojima's swan song to the *Metal Gear* franchise before his unceremonious departure from Konami to start his own studio, *MGSV* is one of the best stealth-action games you can get your hands on. This ambitious sandbox game values your freedom to handle any mission you see fit over anything else. Sneaking around bases with your dog, to calling in a chopper that's blasting Hall and Oates' Maneater as back-up are just a tiny fraction of the hijinks you'll get into. Combine this with the trademark *Metal Gear* anime-esque melodrama that will leave you both speechless and slightly confused as you manage the highs and lows of running a private army.

42 ASSASSIN'S CREED ODYSSEY

RELEASED 2018 | **LAST POSITION** 32 ▼

Robin: I think *Odyssey*'s often really underrated – dismissed as just another Ubisoft sandbox. Sure, it's got way too much bloat, and its *Witcher*-like RPG aspirations don't always gel super well with *Assassin's Creed*'s accumulated mechanical baggage. But its world is just completely spectacular. Even if you don't enjoy the action, you've got to recognise what a technical marvel its realisation of Ancient Greece is – utterly huge and packed with authentic detail and mythological wonder. Few digital spaces are as breath-taking to simply travel across, and after nearly 100 hours, I still don't feel like I've seen everything it has to offer. Between this and *Origins*, I'm actually excited about the future of the series again, which feels miraculous.

41 HALO: THE MASTER CHIEF COLLECTION

RELEASED 2019 | **LAST POSITION** New

Wes: *Halo* was the first FPS to nail shooting on a gamepad, but once you play on PC, with mouse and keyboard and a 144Hz monitor, there's no going back. With each game added *The Master Chief Collection* becomes a better deal on PC. They look old, but the campaigns still offer some of the best sandbox level design in shooter history, and multiplayer runs so smoothly on modern dedicated servers.
Steven: Does *Halo* really need to be justified? It's fuckin' *Halo*!

PERSONAL PICK

Alan Dexter

MTG ARENA

What's that? *MTG Arena* isn't on the list? An oversight, surely. If you want to exercise your grey matter there isn't a game that comes close. I've been playing the cardboard version for over 20 years and this is the best digital incarnation. The fact I still play daily is all the recommendation needed.

40 KERBAL SPACE PROGRAM

RELEASED 2015 | **LAST POSITION** 17 ▼

Wes: I'm psyched for *Kerbal Space Program 2*, coming out next year, which will include co-op. Until then, there's nothing else on PC like *Kerbal*, a game that will inspire you to learn basic rocket physics and feel like a damn genius for every accomplishment.

Chris: As kind of a dummy, it's nice that a game filled with complicated science stuff is still fun even when you fail. Blowing up a rocket or stranding an adorable astronaut in space is met with laughs, not frustration.

39 STREET FIGHTER V

RELEASED 2016 | **LAST POSITION** New

Emma: *Street Fighter V* may not have been in the best shape when it launched, but Capcom has nursed it into a fighting game that lives up to its legacy. Its roster of iconic returning characters – alongside a few new challengers – accommodates a wide range of playstyles that are fun to learn how to counter. More than anything, I respect it for how welcoming it is for beginners. Perfect execution is still a steep grind for novices, but it's more forgiving than previous iterations.

PERSONAL PICK

Fraser Brown

THE BEGINNER'S GUIDE

An analysis of some levels from the perspective of a designer and fan, *The Beginner's Guide* is a fascinating exploration of game design that becomes something so much more. It's insightful and uncomfortable and... I'm going to leave it there.

38 COUNTER-STRIKE: GLOBAL OFFENSIVE

RELEASED 2012 | **LAST POSITION** 38

Emma: I can't imagine a Top 100 list that doesn't feature *Counter-Strike*. For me, it's synonymous with PC gaming. Its community is frequently highlighted for its toxicity and this can make it daunting to queue into competitive matches solo. That said, I've made some lovely friends while grinding through its skill groups, and forming a premade squad took over my Friday nights for the best part of a year.

Counter-Strike: Global Offensive offers a precarious balance of electrifying highs and rock bottom lows that make it just as easy to criticise as it is to fall in love with it. In a good session, the thrills of clutching an important round, or annihilating the other team with a 16-0 finish can put me in a damn good mood for the rest of the day. On the flip side, seeing my performance dip low enough to have me questioning why I haven't deranked already will leave me sulking in defeat.

No other game has managed to replicate the same weight behind its weapons, or the heart rate spikes I suffer as I creep onto its bombsites. From the pride I take in lining up a perfect smoke, to the satisfying one-taps I land with the USP-S, there's no substitute. Especially not *Valorant*. Got that, Tyler?

THE TOP 100

37 SUBNAUTICA

RELEASED 2018 | **LAST POSITION** 18

Jody: When I want to have a good time in the ocean, frolic with some dolphins and swim through schools of tropical fish, I play *Abzu*. When I want to have a bad time in the ocean I play *Subnautica*. There are behemoths with eyes bigger than your body who look at you like just maybe you're a morsel worth opening their colossal maw for. There are razormouth jerkfish who will saw your bones because you had the audacity to swim near *their* weeds. There are things beyond description in the crushing depths where it feels like physics don't apply. I don't know why I play *Subnautica* actually, but I'll never forget it.

36 FORZA HORIZON 4

RELEASED 2018 | **LAST POSITION** 35

James: It's been a stressful year. And whenever I'm stressed, which is always, I meditate. Find a centre, breathe, step outside my thoughts. But *Forza Horizon 4* is home to perhaps the most potent meditative technique I practice: driving expensive cars through fences and over hummocks (and the occasional hillock) in the English countryside. The *Horizon* series is still the most blissful, accessible, whatever-you-want-it-to-be car game around. I tend to spend a lot of time applying dumb liveries to vans and driving them off cliffs because a van suspended in mid-air feels like a form of existential protest to me. To hell with gravity and roads and lightweight chassis. I'm a van and I can fly. Anyway, you can race cars in *Horizon 4* too, I guess.

35 MONSTER HUNTER WORLD

RELEASED 2018 | **LAST POSITION** 12

Robin: There are few things in games as tense and exciting as one of *Monster Hunter World*'s monster fights. It's essentially a game of endless boss battles, with exploring and RPG tinkering in between, and they're the best boss battles in the business – dynamic, unpredictable brawls where you can be about to lay the killing blow on a fire-breathing tyrannosaurus rex, only to be interrupted by a screeching dragon furious you've stumbled into its territory.

THE TOP 100

34 SUPER MEGA BASEBALL 3

RELEASED 2020 | **LAST POSITION** New

Chris: It's been a real pleasure watching this cartoony baseball series grow from a fun but casual action game into a sim with real managerial depth and challenge. Franchise mode is excellent, allowing you to enhance the skills of individual players over the course of the season, sign and release players, and see veterans retire and rookies appear over the winter break, giving your team an evolving history and continuity. Customisation lets you control everything from the logo on your team's caps to the structure of the post-season. And Pennant Race is a great online mode challenging you to climb the ladder in a series of games against friends or other players. Metalhead Software swung for the fences and really connected.

33 COMPANY OF HEROES

RELEASED 2006 | **LAST POSITION** 33

Dave: Where do you go after the vast scale of the *Homeworld* games, and 40,000 years into the future with *Dawn of War*? Super small-scale squad-based World War II, obviously. It might not have been the most obvious choice of theatre, but Relic made an RTS that's intimate, brutal, engaging, and intricately tactical. The campaigns themselves are a blast, added to with smart standalone DLC introducing tangibly different factions, and the multiplayer experience delivers some of the most intense, entertaining experiences I've ever had mowing down hordes of Nazis. It was the blueprint for future *Dawn of War* games, and is a title that still gets installed on my rig for a quick blast whenever I find myself coming down off a Dan Carlin binge.

32 CITIES: SKYLINES

RELEASED 2015 | **LAST POSITION** 31 ▼

Fraser: *Cities: Skylines* has maintained its position as the best city builder for five years now and shows no signs of giving up the crown. The modding community has played a big role in its longevity, churning out a mountain of cosmetic and mechanical changes. I've got something like 200 mods that are just cyberpunk. Every time I think I'm tapped out and can't build another district, I'm seduced back in for another urban planning experiment. I'll be here until there's a sequel.

31 DARK SOULS REMASTERED

RELEASED 2018 | **LAST POSITION** 34 ▲

Wes: I still marvel at the audacity to put an entire area, Ash Lake, behind an invisible wall that many players will never find. *Dark Souls*' commitment to player discovery is what makes its unforgiving world so entrancing. And the multiplayer is still one-of-a-kind, which is why the hour-long standoff I had with another player over what I thought were traps – but were actually harmless glowing pebbles they put down to taunt me – is still one of my favourite gaming memories.

James: *Dark Souls* isn't perfect, but it's perfect enough to forgive the dreadfully depressing Demon Ruins and Lost Izalith, which is why I'm high-jacking this space to put out an important PSA. Everyone knows *Dark Souls* is good. But *Dark Souls 2*? It's the one to play right now, especially if you haven't yet. It's not as tonally or visually consistent, but the breadth of monster designs, especially in the bosses is unmatched. Fight a frog that pukes out a huge desiccated face. Take down the entire skeleton hierarchy. Trip up a ghost carriage in an ancient coliseum. And do it all dressed as a human butterfly, maybe a jester, perhaps some wooly mammoth cosplay. Stage dive into the heart of chaos in the most metal boss fight in possibly any game. Give the much unloved middle child its own special day.

28 LEAGUE OF LEGENDS

RELEASED 2009 | **LAST POSITION** 26 ▼

Steven: *League of Legends* defined esports, but even 11 years on it also continues to be a ridiculously fun and challenging game. Recent changes in season ten make matches even more dynamic and unpredictable in a good way, and Riot's aggressive balancing keeps the competition fierce. If you've not played it before, it's never to late to learn.

27 ALIEN: ISOLATION

RELEASED 2014 | **LAST POSITION** 23 ▼

Andy K: The best horror game on PC. Your alien adversary is unpredictable, dynamic, and adaptive, which makes it a terrifying thing to have stalking you from the shadows of Sevastopol. And the space station's hard-edged sci-fi aesthetic, inspired by the 1979 movie, is to die for. Literally, if you spend too long standing around admiring it.

30 TERRARIA

RELEASED 2011 | **LAST POSITION** New

Wes: I paid ten bucks for *Terraria* nine years ago, played many hours of it, and was satisfied. It's surreal to go back to it in 2020, after its last (free) major update, to find the same compelling crafting and exploration expanded with literally thousands of items, massive bosses, and secrets I have to read a wiki to find. Those additions long ago distinguished *Terraria* from being a 2D *Minecraft* clone, but it's still staggering just how much awaits discovery in this game.

29 BATTLETECH

RELEASED 2018 | **LAST POSITION** New

Fraser: There's something very calming about putting together killing machines. Sticking jetpacks on axe-wielding behemoths, swapping out piddly little lasers for armour-melting super cannons – it's not a bad life. The battles are great, of course, but I'm always excited to get back to the garage so I can tweak my lance.

Jorge: *Battletech* has everything I want: space politics, giant mechs, and the never-ending dread of trying to keep my band of mercenaries from going bankrupt.

26 WHAT REMAINS OF EDITH FINCH

RELEASED 2017 | **LAST POSITION** 11 ▼

Rachel: This first-person adventure game is a collection of strange, fantastical tales about the deceased Finch household. As the last living member, Edith has returned to the family home to discover her relative's hidden histories and how each member met their unfortunate end. A touching story that is masterfully told.

THE TOP 100

25 RAINBOW SIX SIEGE

RELEASED 2015 | **LAST POSITION** 16 ▼

Harry: *Rainbow Six Siege* is both complex and beautifully simple. On the surface, all you need to do is capture/defend your objective, so beginners can quickly grasp the aim of the game, but veterans with thousands of hours clocked can still find plenty of ways to improve all the way up to professional level. It's a game where, with guns that can end your round with one bullet and hundreds of tactical micro decisions needing to be made in its many intense moments, I often need half an hour to calm down after a session. Recent new operators and revamps to some of its labyrinthine maps have been strong, too, but the battle against toxicity and bugs isn't over.

24 PERSONA 4 GOLDEN

RELEASED 2020 | **LAST POSITION** New

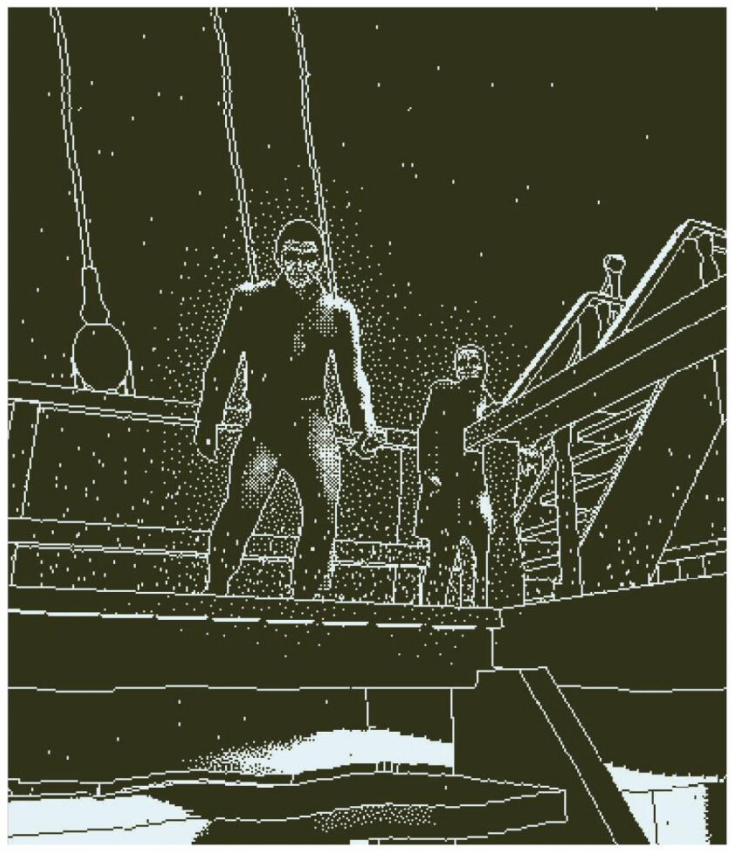
Robin: This iconic JRPG boasts all the usual tropes: dungeon, battles, attacking and dethroning God, etc. But it's in the mundane, not the supernatural, that it grabs you. It's got a wonderful sense of place, its Japanese town utterly evocative and authentic as you progress through the seasons. And even more lovely is its cast of characters – a tight-knit crew of goofballs and misfits that form one of the most convincing and endearing friendship groups in games.

23 RETURN OF THE OBRA DINN

RELEASED 2018 | **LAST POSITION** 8 ▼

Wes: There's no better feeling than noticing some tiny detail – could that really be a clue? I think it just might be! – and being rewarded by *Obra Dinn*'s enthusiastic burst of music when properly guessing how one of these sailors met their grisly end. For a little clue – you have to pay attention to everyone's shirt – and that's all I'm saying on that.

Rachel: Lucas Pope's haunting detective game makes you witness things that have only existed in the gossip of sailors. Its bleached 1-bit visuals invite players to look a little closer before a chilling realisation sinks in. It's one of the best mysteries on PC, and if becoming an expert on all the different crew on a merchant ship from the 1800s sounds like fun, then this game will be right up your galley.



22 TOTAL WAR: THREE KINGDOMS

RELEASED 2019 | **LAST POSITION** New

Steven: Total War has explored several important historical periods, but none of them feel as fully realised as *Three Kingdoms*. That's because *Three Kingdoms*' emphasises the characters that defined that era of Chinese history, making for a dramatic and fun strategy game with a lot of wonderful little flourishes and quirks. I love how factions are now defined by the personality of their leaders, like the conniving Cao Cao or the ageing dignity of Liu Bao, and how that focus on personality also makes diplomacy actually matter over the course of a campaign. Instead of fighting faceless factions, you're sitting down with enemy generals with their own stories, motivations and weaknesses, and it makes the battles feel all the more intense when they're the result of interpersonal conflict between warlords.

Fraser: Right out the gate, *Three Kingdoms* was already a strong contender for the best *Total War* game, and since launch Creative Assembly has only added more to make it stand apart from the rest of the series. Expansions have introduced new campaigns that slot neatly into the regular campaign, fleshing out the timeline with more events and factions. The campaign is now even better, with a huge variety of starting scenarios and a bunch of new factions with unusual mechanics.

21 FINAL FANTASY XIV

RELEASED 2013 | **LAST POSITION** 28 ▲

Steven: If there's one MMO you should play in 2020, *FFXIV* is it. The latest expansion uses years of careful character development to deliver a dimension-spanning gut-punch that rivals the series' best, and I really enjoy how *FFXIV* tells such a coherent yet expansive story. It's just a joy to play. Its classes are fun, and dungeons and bosses are so unique and well-crafted that I don't mind running them over and over again for new gear.

20 HALF-LIFE: ALYX

RELEASED 2020 | **LAST POSITION** New

Tyler: I don't like the horror aspects. I'm a wuss, and handling zombie corpses in VR makes me too nervous. Handling all other things with the Gravity Gloves, however, is fantastic. It's like you're Thor and everything is your hammer.

Chris: I was skeptical a game sandwiched between *Half-Life 1* and *2* could do much story-wise, but I'm happy to be proven wrong. *Half-Life: Alyx* invigorated a storyline I've been invested in for over 20 years with some thrilling revelations.

PERSONAL PICK

Wes Fenlon

SATISFACTORY

It's really all in the name. Even incomplete in Early Access, this factory building sim is so damn satisfying in how it lets you optimise designs, then sit back and watch your elaborate construction whir with life. God I love building things that build things that build things that build...

PERSONAL PICK

Dave James

FOOTBALL MANAGER

There is always a long-term *FM* career going on my home PC, and stored in the cloud so I can access whenever, from wherever. It's my happy place, even when it's making me more angry than a bunch of computer people have a right to. It's also the best RPG going. Fight me.

19 INTO THE BREACH

RELEASED 2018 | **LAST POSITION** 6 ▼

Jody: Not even *XCOM: Chimera Squad*'s missions are perfectly bite-sized like *Into the Breach*'s snacky levels. Strategy games are usually life-devouring posture-killers. Not so with *Into the Breach*. Move mechs, trick giant insects into smacking into mountains, and you're done. One step closer to saving a world, time left to walk the dog.

18 THE SIMS 4

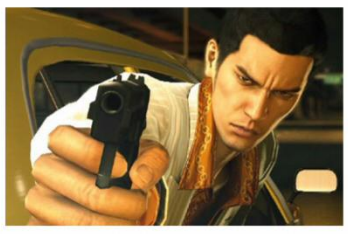
RELEASED 2020 | **LAST POSITION** New

Chris: It'll cost an arm and a leg to keep up with the seemingly endless amount of expensive add-ons, but there are simply no other games out there quite like *The Sims* series. Whether you play casually or devotedly, it remains an utterly absorbing, occasionally morbid, often hilarious dollhouse, person simulator and multiple story generator.

17 APEX LEGENDS

RELEASED 2019 | **LAST POSITION** 24 ▲

Phil: For the longest time I thought battle royales weren't for me. *Apex Legends* changed that, by encouraging me not to hide away like a coward, but to embrace the speed, manoeuvrability, and lethality of its design and go looking for a fight. I'm a convert – I've already logged 180 hours since March, and I won't be stopping anytime soon.



16 YAKUZA 0

RELEASED 2018 | **LAST POSITION** 15 ▼

Jorge: You come to *Yakuza 0* for the Japanese '80s crime drama, but you'll stay for the over-the-top fights and wholesome character moments as you try to improve the lives of the citizens of Kamurocho. Also, seeing the series' beloved protagonists, Kiryu and Majima, in their awkward 20s struggling to figure out what kind of men they want to be is surprisingly relatable. The *Yakuza* franchise has been around since 2004 and *Yakuza 0* is the perfect introduction to the series.

15 HITMAN 2

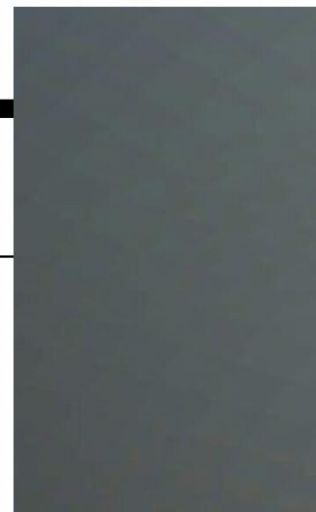
RELEASED 2018 | **LAST POSITION** 9 ▼

Fraser: You can kill someone with a homing suitcase.
Phil: You can! And it's the reason *Hitman 2* is one of the most satisfying stealth games around. Look behind the thematic window dressing of a stoic assassin causing trouble in a series of neighbourhoods and you'll realise that *Hitman 2* is a procession of puzzle boxes built on rigidly consistent rules. It's a rare and beautiful game where breaking your own sense of immersion makes for a more enjoyable experience.

14 DOOM ETERNAL

RELEASED 2020 | **LAST POSITION** New

Wes: *Eternal* spikes my adrenaline so hard I'm exhausted after an hour. If you've ever pondered the videogame equivalent of slamming a 16 oz Monster Energy, then juggling chainsaws while riding a unicycle across a burning rope suspended over a hellmouth, well, here you go.
Harry: *Doom Eternal*'s frantic relentlessness is often exactly what I'm looking for in a shooter. Juggling resources and living every second on the edge of death is a great way to unwind and few other games require quite the same undivided, hysterical concentration. While *Eternal* didn't change enough to give it the impact the 2016 reboot did, it didn't really need to. That intoxicating cocktail of hardcore metal, intricate map design and gruesomely cathartic glory kills is as exhilarating as ever, in necessarily short bursts.
James: *Doom 2016* is still great! Go play that if you want to breathe between headshots, if you want to remain fully conscious and aware while ripping up demons and sticking it to the man (the man is Hell). But *Eternal* is a vastly different experience. *Doom 2016* wants you to feel cool and sweat a bit. *Eternal* kept me in a lizard-brained panic, balanced between frenzy and despair, an FPS automaton of pure instinct for 15 damn hours.



13 KENTUCKY ROUTE ZERO

RELEASED 2020 | **LAST POSITION** New

Rachel: Cardboard Computer took seven years to release all five episodes of *Kentucky Route Zero*, and it was still worth the wait. This evocative adventure about the struggles of rural America is more relevant today than ever. It's an anthology of stories from the road, tales of Americana lore intertwined with the truths of working class folk. Miners, electricians, and clerks take centre stage, telling stories of difficult survival during economic hardship. It's a powerful story that ultimately conjures a damning portrait of America.

12 XCOM 2

RELEASED 2016 | **LAST POSITION** 13 ▲

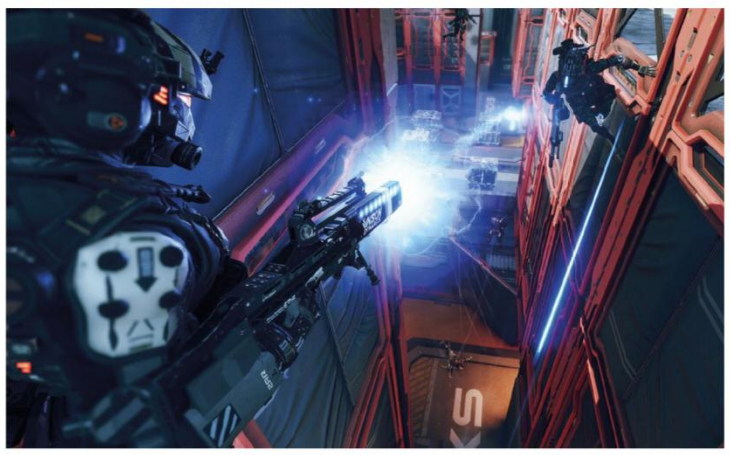
Wes: This modern strategy classic sticks around year after year because it's such an endlessly flexible sandbox, but the Chosen, stars of its must-have expansion really make it for me. They're nasty, vengeful alien commandos who show up to make your life hell time and again. They made me miserable, but in return I tracked them to their hideouts and relished the chance to finish them off after so much torment. Evil's just more fun to fight when it has a face you can punch.

Robin: After the cautious defensiveness of the previous game, I love playing the sneaky aggressor in *XCOM 2* – no less vulnerable, but boldly forging my own destiny against the forces of oppression. And that atmosphere only adds to the pathos when a beloved soldier dies.

11 PLANESCAPE: TORMENT

RELEASED 1999 | **LAST POSITION** New

Jody: I first played Dungeons & Dragons in the 1990s. Even then *Planescape* was a wildly imaginative setting – a multiversal city run by squabbling philosophy gangs. *Torment* takes that world and emphasises its urban grottiness, with magic tattoos instead of platemail and charms made of flies. The heroes are scuffed-up too. There's a thief who's part-demon and voiced by Sheena Easton, a pyromancer with eternally burning skin, and you, an amnesiac corpseman.



10 TITANFALL 2

RELEASED 2016 | **LAST POSITION** New

Robin: The most creative shooter campaign in years, plus a wonderfully dramatic multiplayer offering. Now that it's finally on Steam, you've really got no excuse not to pick it up. If any game deserves a second life, it's this one.
Harry: I'll take Robin's word for it on the multiplayer, but the campaign is the best ever in a shooter, with more imagination in single levels than some entire games. The timeline-tearing Effect and Cause level is rightly eulogised, but the way the game is willing to bin excellent ideas like this, then follow it up with something better, is extraordinary. Like many, I only played it because of word-of-mouth, so here's the word from my mouth: play it.

9 OUTER WILDS

RELEASED 2019 | **LAST POSITION** 20 ▲

Steven: Playing *Outer Wilds*, I felt a kind of childlike wonder at the cosmos that I haven't felt in a long time. Each planet that you can visit is a wonderful scientific enigma that slowly reveals a tragic and poignant story about our place in the universe. It's charming, endlessly inventive, and, despite a frustrating final puzzle, one of the most consistently incredible indie games I've ever played. While games like *Elite Dangerous* try to recreate the joy of discovery by emulating an entire galaxy, *Outer Wilds* packs it all into a single solar system trapped in a 20-minute time loop. Play this game.
Robin: So glad we pushed this higher this year. An absolutely exquisite game that everyone should try.

8 HOLLOW KNIGHT

RELEASED 2017 | **LAST POSITION** 7 ▼

Rachel: Team Cherry's gloomy subterranean world is like no other. The craft in every inch of its bug civilisation is incredible – there are stories to find wherever you roam. It's a fantastically satisfying action-adventure to play through, but it was wanting to learn more about the tragic settingthat kept me pushing ever forward.
James: *Hollow Knight* is still the best *Metroid* game. Nintendo, cancel the rest of your 2D *Metroid* plans, mainline that Prime stuff, because Team Cherry has it handled. No other 2D adventure has as much tucked away, a constant unfurling of scope, character and history.
Robin: Here's a hot take for you: I think this game does *Dark Souls* better than *Dark Souls* does.

7 DISHONORED 2

RELEASED 2016 | **LAST POSITION** 5 ▼

Fraser: No game has levels like the ones found in *Dishonored 2*. Most of them would be the high point of an entire game anywhere else. When you reach the Clockwork Mansion, you think it's probably peaked, with its elaborate transforming rooms and terrifying mechanical constructs, but then a few missions later you hit A Crack in the Slab, letting you explore a mansion in both the past and present, altering the timeline to complete your mission. Picking apart their quirks and figuring out how to break the patterns of the guards requires a lot of lateral thinking, but thankfully you've usually got a lot of nifty tricks up your sleeve – at points you feel more like a trickster god than an assassin.

6

SEKIRO SHADOWS DIE TWICE

RELEASED 2019 | **LAST POSITION** 3

Harry: This isn't just one of the finest, tightest, sharpest action games ever, it's also one of the best rhythm games you can play on PC. Imagining each flourish of an enemy sword as a node on an approaching fretboard is a useful way of parrying and dodging your way through the dark world of Sengoku-era Japan. As is customary from FromSoftware by now, the combat is note-perfect, too, making the punishingly rewarding learning curve feel as firm, fair, and utterly enthralling as ever.

Tom: FromSoftware can do no wrong at the moment. *Sekiro* features the best combat system the developer has made yet. The block-and-parry system produces fights that look as though they've been choreographed, and the boss battles are outstanding.

5

SLAY THE SPIRE

RELEASED 2019 | **LAST POSITION** 4

Tyler: Still the best roguelike deckbuilder, despite a couple of challengers. You'll know you're hooked after the first time you spend a full minute deciding whether to click on a campfire or a shop.

Robin: In the years since its Early Access release, I don't think there's any game I've played as much as *Slay the Spire*. The decks you build as you play feel like intricate engines – and there's always some new configuration of parts to try.

Wes: Shout out to Electrodynamics, the card that turns my beloved android Defect into a lightning bolt-casting murder machine. It always makes me feel unstoppable, right up until the wrong boss fight ruins my night. But there's always time for another run, even if it's already turned three in the morning.

THE TOP 100

4 THE WITCHER III

RELEASED 2015 | **LAST POSITION** 2

Robin: Such a spectacular, ambitious achievement of an RPG world that it really hasn't aged much at all. Still an absolute pleasure to explore, and still home to some of the best writing and characters the genre's ever seen. Finish the main game, and your reward is two expansions that are even better.
Andy K: For me, the magic of *The Witcher III* lies in its many side quests. When you pluck an innocuous-sounding bounty from a village notice board, you never really know what kind of wild story you're about to get yourself tangled up in. Almost every quest feels weighty and worthwhile, with memorable stories inspired by some of the very strangest cuts from the depths of Eastern European folklore.

3 RED DEAD REDEMPTION 2

RELEASED 2019 | **LAST POSITION** New

Chris: Easily my favourite game of 2019, checking off all the boxes on my internal wishlist: beautiful and incredibly detailed open world, lots of stuff to do but typically not much pressure to do any of it until I was ready, and believable characters I felt invested in. Many of the missions in the second half felt a bit samey, but since missions were spaced out over the 100 or so hours I played it didn't bother me much.
Andy K: Rockstar's evocative slice of the American West is the only open world that feels genuinely wild and natural to me. They really captured something about nature that seems to have eluded other studios, which makes for a setting that feels wonderfully *real* as you explore.

2

DIVINITY: ORIGINAL SIN 2

RELEASED 2017 | **LAST POSITION** 1

Robin: I love that *Divinity: Original Sin II* applies the same sense of choice and freedom that you find in its sprawling, branching story to its systems-driven combat. Interweaving elemental effects – expanded hugely from the already ambitious first game – turn every fight into an exercise in controlled chaos.

Teleport that oil barrel onto an enemy's head to crack it open, then set it alight with a fire spell. Curse the fire to make it unextinguishable. Summon rain to create puddles across the battlefield, then a chill wind to freeze them – or electrify them with lightning. Then heat it back up to turn it into a line-of-sight blocking steam cloud to protect your back line, before your warrior leaps over to cause havoc.

Combat is its own sandbox, with endless opportunities to experiment and prove how clever you are – or for things to go spectacularly wrong in the most hilarious fashion. It doesn't feel like just something you do between conversations, or a way to show off your latest stat upgrade. It's a seamless continuation of the game's anarchic philosophy, and just a fantastically fun tactical challenge in its own right, too.

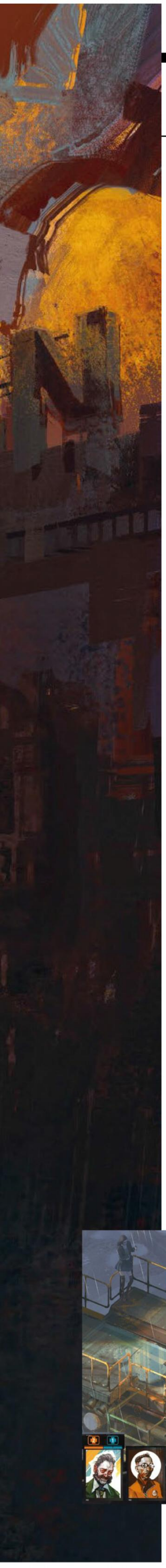
Fraser: I dig it so much that I've started a new game even though *Baldur's Gate III* is coming soon, at least to Early Access. And why not? Playing with different characters and builds means I get to experience all the best bits again from a different perspective. Now I'm a dickhead lizard who keeps demanding people make me some lunch. And I've got a new friend, a squirrel riding a cat skeleton, along with a bunch of other additions and official mods that have sprouted since its launch. It's still a brilliant, free-wheeling RPG, and sports one of the all-time best combat systems – and after a slew of updates it's currently the best it's ever been.

Jacob: That every single character in a 120+ hour RPG has been fully voiced by an actor should be proof enough that *Divinity: Original Sin II* is worth your time. The level of detail in this game, and the willingness to let the player enjoy it as they see fit, far surpasses anything else I've experienced.

Tyler: There's a sad quest about dogs that you can only do if you know how to speak to animals. You can rip off people's faces and wear them to disguise the fact that you're a skeleton. You can accidentally finish quests before an NPC explains them to you, just because you stumbled onto them. *Divinity: Original Sin II* feels much more like playing with a creative and clever DM than most modern RPGs, especially the sort that lays much of its choice in rude or nice dialogue options.

And as has been mentioned, the turn-based combat is great, in part just because it's turn-based, as it should be. (Sorry if you like it, but real-time-with-pause can bite me. I'm very thankful that Larian is developing *Baldur's Gate III*, because it means I might actually enjoy a *D&D* game for once.)

THE TOP 100



1

DISCO ELYSIUM

RELEASED 2019 | **LAST POSITION** New

Robin: I struggle to think of a game that has more radically changed how I think about a genre. *Disco Elysium* breaks down the RPG, turns it upside down, slaps it in the face, and then takes it to a bar to get hammered with it. Despite an old school isometric perspective, it couldn't be more willing to dump dry old tropes and mess with the ones it keeps, to the point that even much larger, more fully-featured RPGs seem oddly unambitious, and even stagnant, by comparison.

Jody: Of all the bold things *Disco Elysium* does, my favourite is that it says videogames can be political and all the better for it. It starts out cynical about politics and constantly points out the flaws of every ideology, including ideology-less centrism, but it builds from there to a point – that politics are messy and confusing but also necessary, that communities should take care of their own most vulnerable members, and that even when it hides behind labels like 'traditionalism' and 'nationalism', fascism can go and do one. It makes other RPGs, especially ones that try to present both sides of every argument, seem wishy-washy and cowardly.

Fraser: *Disco Elysium* lingers long after it's over. It poses a barrage of questions and constantly challenges with its themes of revolution, nationalism, morality – a kaleidoscope of ideologies all being presented before the game tears them down. Every character seems to have a manifesto, and the game itself almost serves as a manifesto for the future of RPGs, or at least ZA/UM's vision for it.

It rips out so many tired RPG cliches and swaps world-shattering stakes for an introspective exploration of a man utterly failing to hold it together. It grabs the genre by the shoulders and shouts, "You don't need elves or fights or scenery-chewing villains!" And even when it uses conventional stuff like skill checks, it reinvents the whole system. Skills have personalities. They talk to you. They tell you secrets about the city or offer insights into crime scenes.

Playing other RPGs, I just keep thinking about *Disco Elysium*. It makes most of them seem cautious and set in their ways, and the constant recycling of systems that have, in some cases, barely changed in decades seems less forgivable now that there's this much more appealing alternative available.

Andy K: I knew *Disco Elysium* was special from pretty much the moment I started playing it for our review – but I didn't bank on it permanently altering my expectations for an entire genre. The freedom you have to shape the protagonist, through the things you say and do, is quite extraordinary. He's a gross, wet ball of clay, and by the end of the game it really does feel like you've moulded him into something distinctly yours. I'm also amazed whenever I play how developer ZA/UM seems to constantly be two steps ahead of me, with some kind of reward or pay-off, even if it's a small one, for any harebrained idea I happen to dream up. The only really bad thing I have to say about *Disco Elysium* is that it's ruined all other RPGs for me. If only all the others were this improbably deep.

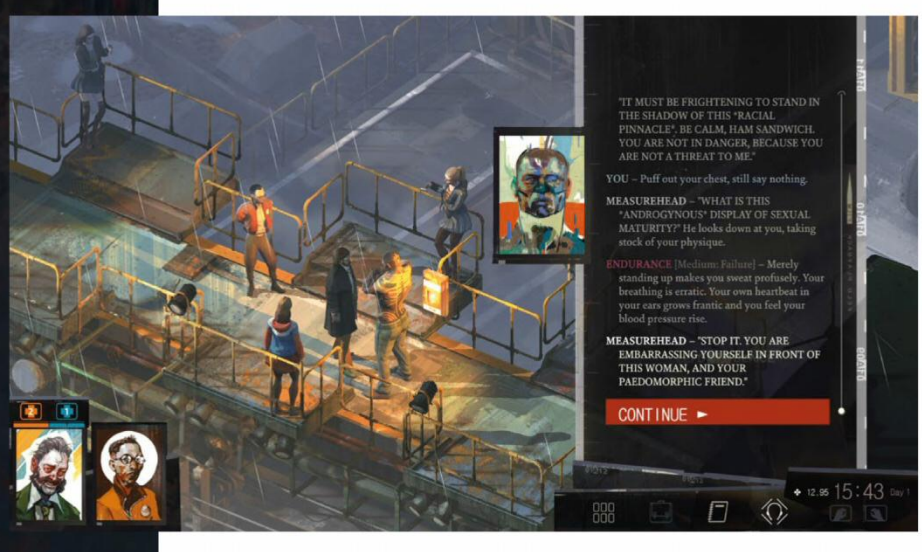
Jacob: If I asked you to describe the worst hangover you've ever experienced, it wouldn't hold a candle to the one you have to live out in *Disco Elysium*.

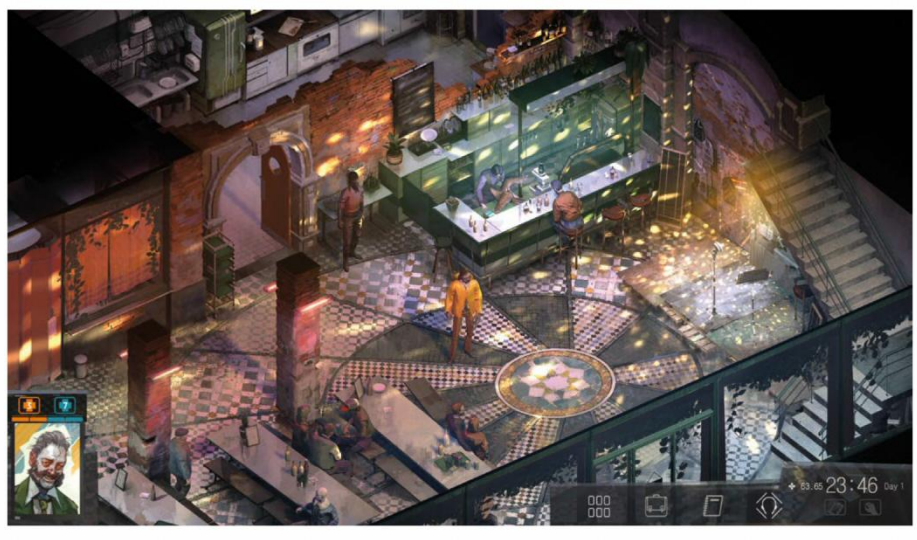
Wes: The writing! I want to bathe in these words. There's a joyous reverence shimmering off every sentence in *Disco Elysium*. It feels so alive with its mission to prove that words alone can make a masterpiece. Turns out they can.

THERE'S A JOYOUS REVERENCE SHIMMERING OFF EVERY SENTENCE

Plenty of RPGs have great writing. *Disco Elysium* goes out of its way, though, to truly elevate its text. Tremendous care went into the presentation – the font, the way text unfurls, the visual effects when you pass or fail a skill check – to keep you glued to these words. *Disco Elysium* turns traditional RPG skills into luscious conversations, with each voice in your head adding colour, clarity and humour to a scene far more effectively than graphics could. It's a thousand times more interesting and creative than a companion in a BioWare-style RPG chiming in with an opinion on your latest binary decision.

I love games that truly feel like they were made by individual human beings, and it's staggering that every word, in a game of this scope, can feel so personal.





PC GAMER

REVIEW

HOW WE REVIEW

We review each game on its own merits, and try to match it to a reviewer who's a passionate expert in the field. The main aim of reviews is to help you make buying decisions. To this end, we're selective about what we review, and try to focus on the notable, interesting, exciting or surprising.

DOWNLOADABLE CONTENT

DLC might be new missions for a game, or it might be a single new item. If we think you want to know about it, we'll review it.

EARLY ACCESS

Any released alpha, beta, or otherwise unfinished game that you can currently pay for. For these games, we won't assign a score, but we will tell you whether they're worth your time.

THEY'RE BACK

Whenever there's a bargain or re-release of a significant game, our expert will revisit it and tell you whether it holds up today. With jokes.

OUR SCORING SYSTEM EXPLAINED

00%-09% Broken or offensively bad; absolutely no value.
Example *Leisure Suit Larry: Magna Cum Laude*

10%-19% We might be able to find one nice thing to say about it, but still not worth anyone's time or money.
Example *Gettysburg: Armored Warfare*

20%-29% Completely falls short of its goals. Very few redeeming qualities.
Examples *Family Guy: Back to the Multiverse*

30%-39% An entirely clumsy or derivative effort. There's little reason to play this game over a similar, better one.
Examples *Trials of the Blood Dragon*

40%-49% Flawed and disappointing.
Examples *Aliens: Colonial Marines*

50%-59% Mediocre. Other games probably do it better, or its unique qualities aren't executed well.
Examples *Primordia*, *Homefront: The Revolution*

60%-69% There's something to like here, but it can only be recommended with major caveats.
Examples *No Man's Sky*, *Ghost Recon: Wildlands*

70%-79% A good game that's worth playing. We like it.
Examples *Prey*, *NieR: Automata*

80%-89% A great game with exceptional moments or features, and touches of brilliance. We love it.
Examples *Overwatch*, *Night in the Woods*

90%-94% A compelling recommendation for most PC gamers. Important to PC gaming, and likely ahead of its time.
Examples *Bayonetta*, *Dishonored 2*

95%-96% Far and away one of the best games we've ever played. We recommend it to the entire world.
Examples *Half-Life 2*, *Kerbal Space Program*

97%-100% Advances the human species. Boosts the immune systems of nearby children and small animals.

PC GAMER EDITOR'S CHOICE

The Editor's Choice award is granted in addition to the score, at the discretion of the PC Gamer staff. It represents exceptional quality or innovation.

Find out more
www.bit.ly/pcgreviews

Gone wild

A full two-thirds of the new releases reviewed this month are games set in the Wild West. Now, you may argue that's not very impressive in the light of the reviews section being cut way down this month, both to make way for our colossal Top 100 feature, and because... well, not a lot came out. I would respond that you are simply refusing to accept the evidence that we are living in the midst of a grand cowboy revival, our cooped-up, lockdown-addled brains yearning for the rolling plains of a simpler time. A time when men were men, women were women, and guns were less efficient but looked much cooler. You might reply that the strain of pulling together the Top 100 has irreversibly damaged my sense and reason. Too late: I've already put on a ten gallon hat and ridden away into the sunset. Yee-haw, dear reader. Yee-haw.

ROBIN VALENTINE
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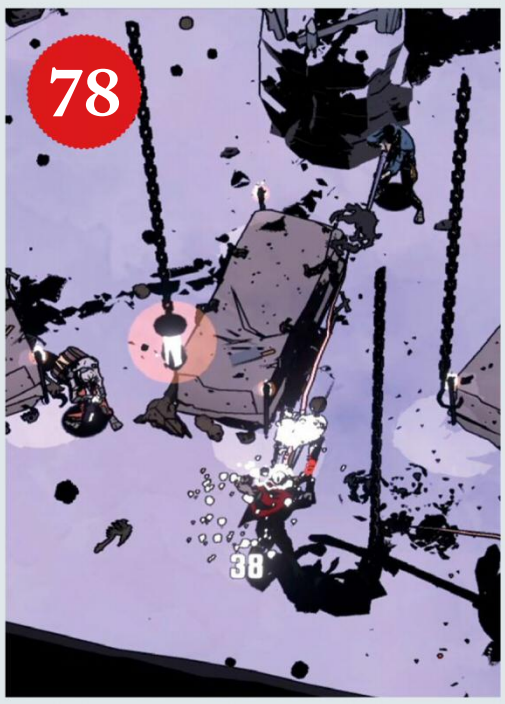
LET US KNOW WHAT YOU THINK
Email us via letters@pcgamer.com with your reactions, or simply tweet us your thoughts @PCGamer



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This month's cattle rustlin' reviewers...

FRASER BROWN
Specialist in
Cowboy stealth
Currently playing
Desperados III
This month
Conquered the West with voodoo, dynamite, and the world's dullest man.

PHIL IWANIUK
Specialist in
Themed afterlives
Currently playing
West of Dead
This month
Determined the likely existence of ninja hell, pirate heaven, and samurai purgatory.

CHRIS SCHILLING
Specialist in
12 year old JRPGs
Currently playing
Persona 4 Golden
This month
Jumped into his monitor and defeated his Shadow Self.

TOM SYKES
Specialist in
Planets that are all one colour
Currently playing
Red Planet Farming
This month
One-upped Matt Damon when it comes to vegetable variety.

MATT ELLIOTT
Specialist in
Underground combat
Currently playing
Darkest Dungeon
This month
Explored the best dungeons gaming has to offer. Just looking for some inspiration.

QUICK DRAW

Grab your stetson and sneak your way through the Wild West in **DESPERADOS III**. *By Fraser Brown*

There is no dearth of handy tools in *Desperados III*, so it's hard to pick a favourite. The brutal bear trap that clamps its jaws around anyone unfortunate enough to walk over it has to be a contender, but I'm also rather partial to the darts that let you kill two enemies with one blow – through magic, no less. None of them saved my arse quite as often as the humble F5 and F8 keys, however, and the rest of my arsenal would be useless without them.

Every one of its stealthy encounters is its own puzzle, and every puzzle is a chance to experiment and, more often than not, fail. *Desperados III* is all about a team of specialists working in sync, using preternatural precision and timing to overcome seemingly impossible odds, but the journey to perfection is full of slapstick escapades and catastrophes. A split-second or an inch can mean the difference between an effortless display of teamwork and a team full of corpses, but with quicksave in one holster and quickload in the other, you'll get there eventually.

Maybe your very clever attempt to drop an entire wall on someone was foiled because a guard turned around and spotted you at the last moment, so you try again but this time send someone in a disguise to distract the guard. Another enemy might see through their disguise, however, but not if you've made this mistake before and wisely remembered to plonk down a trap right in their path.

Though it's a prequel to 2001's *Desperados: Wanted Dead or Alive*, *Desperados III* is really *Shadow Tactics: Blades of the Shogun*'s successor. Like Mimimi Games' last real-time tactical stealth affair, it's got smart – but not too smart – enemies, intricate maps overflowing with opportunities for cleverly orchestrated murder and, if you fancy it, some mayhem, a quintet of proficient killers and sneaks, and best-in-the-business vision cones. As one of the greatest stealth games of the last decade, the Edo-era romp is a tough act to follow, but its Wild West cousin looks to some other great stealth games for inspiration.

With quicksave in one holster and quickload in the other, you'll get there

SOCIAL LIFE

A few missions take place in civil zones where you're free to explore most of the map without drawing attention to yourself. While out for a stroll, you can listen in on conversations to get clues, helping you identify your targets or find ways to kill them. It's social stealth very much in the same vein as the *Hitman* games, but only the bare essentials. Rather than taking you down an elaborate path, the clues are more like 'there's a loose sign hanging above that guy's head' and you'll still spend most of the mission sneaking and killing your way through off-limits areas full of guards.

Not that dropping a sign on someone isn't a good time. Accidental and environmental kills aren't limited to civil zones, and they're always just that bit more satisfying than filling someone with lead. There's usually a bit of risk involved in using them, but after being quiet for hours, sometimes it's a relief to cause a ruckus by dropping a minecart full of rocks on someone. You can use Gatling guns and barrels of dynamite, too, though not surprisingly they don't count as accidental deaths.

MISSPELLED

Then there's the addition of magic. About a third of the way through the game, you'll meet Isabelle, and suddenly you'll be doing all sorts of dishonourable stuff. Possessing animals, making guards kill each other, connecting people so they both suffer the same fate – *Dishonored*'s Corvo Attano would be proud. Every mission tasks you with manipulating enemies to get them into positions where you can kill them or pass by undetected, but normally it's done indirectly. A character who can take complete control over almost every human and animal on the map, then, is a massive boon. Her lack of a proper ranged weapon is possibly the only reason you wouldn't use her exclusively; that, and the fact that she's available in significantly fewer missions than anyone else.

Mechanically, Isabelle's supernatural powers fit perfectly in a game that's all about lateral thinking, but voodoo magic and cowboys is an »

NEED TO KNOW

WHAT IS IT?
A real-time stealth tactics game set in the Wild West

EXPECT TO PAY
£45

DEVELOPER
Mimimi Games

PUBLISHER
THQ Nordic

REVIEWED ON
GTX 1080Ti, Intel i7-8086K, 16GB RAM

MULTIPLAYER
No

LINK
desperadosgame.com

TOOLS OF THE TRADE *How to get away with murder*

DISTRACTIONS
Get guards to look the other way with cute animals, loud noises, or flirty conversation, then sneak past them or stab them in the back.

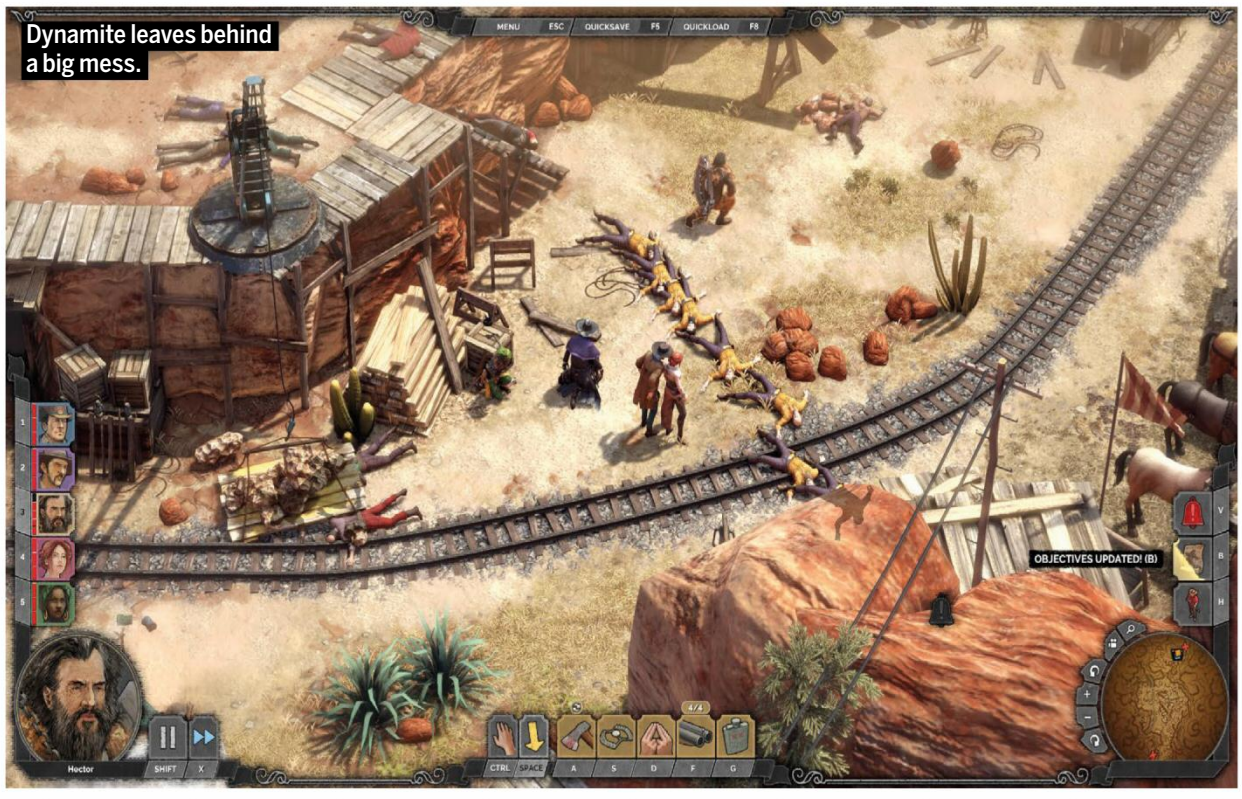
TRAPS
Keep your hands clean by making enemies walk underneath precariously balanced rocks, loose scaffolding, or your own nasty bear trap.

GUNS
When you get tired of sneaking around, take out groups of enemies quickly and loudly with guns. If that's not loud enough, find some dynamite.

MAGIC
There's witchcraft in the Wild West now, letting you possess humans and animals, or even magically connect enemies so you can kill with one shot.

Some enemies can't be distracted, while others are too strong to take down alone.

Mission replays let you see the route you took, where you killed, and even where you saved and loaded.



Dynamite leaves behind a big mess.

Conveniently, they've already dug their own grave.

Every sneaky puzzle can be solved in a bewildering number of ways.

Sure would be sad if something were to happen to this nice bridge.

Sneaking about to lay down some devious plans.

unusual mix. Unfortunately, it's not one that the story explores. Instead, it's a tediously straightforward tale of revenge mixed in with an unnecessary origin story about the group. It focus more than anything on the background and arc of its most boring member, Cooper, a man who serves as living proof that not all gunslingers are cool, and a backstory isn't magically made compelling just by including the convenient death of a family member.

None of the gang have wormed their way into my heart, but I've got no complaints about their performance on the job. Right up till the end, I was finding many new ways to take advantage of their myriad talents, and watching them clear a room in tandem, a plan finally going off without a hitch, is a truly joyful moment every time.

Showdown mode makes these synchronised assaults possible, letting you pause the game so you can issue each of your team members an order, which you can then fire off individually, or all at once for a slick synchronised attack. It's an incredibly powerful planning tool, giving you the ability to set up complex sequences that you have complete control over without supernatural micromanagement skills. The problem with setting up these elaborate attacks is waiting for exactly the right moment to deploy them, but that's less of a chore with the fast-forward feature. You can use it at any time, and you'll probably end up using it a lot.

The combination of plentiful firearms, lots of ammo crates, and the ability to pause the action means you can just drop the pretence of stealth and go in guns blazing if you want to, welcoming the alarms and turning it into more of a tactical shooter. Even if you prefer to be sneaky and creative, it's reassuring to have the option to shoot your way out of trouble in your back pocket. Guns can become a bit of a crutch, however, letting you brute force your way through some of the game's puzzles, but ammo is one of several elements that can be tweaked at the start of every mission. If you're after more of a challenge, you can use these options to turn it into a pure, unforgiving stealth game.

PUTTING TOGETHER A CREW *Get to know the posse*

COOPER
The leader of the group, Cooper's out to avenge his dead dad. He's the dullest of the bunch, but his two pistols and throwing knife come in very handy.

KATE
The least lethal of the gang, Kate can put on a disguise, slip into off-limits areas, and manipulate guards. If things go south, she carries a gun for backup.

HECTOR
Hector's big, loud, and he carries a huge bear trap everywhere. With his brutal shotgun and the strength to carry multiple bodies, he's great at clearing out groups.

ISABELLE
Isabelle's the only character who can use magic, and more importantly she's the only character with a companion: an adorable, distracting cat.

MCCOY
McCoy makes up for being a complete dickhead with his impressive sniping skills. When he finds a good perch, nobody is safe from his pin-point accuracy.

Everything's bigger than in *Shadow Tactics* – maps, enemy numbers, combat ranges, explosions. There are more obstacles – so many obstacles – but just as many tools to deal with them. It's full of astonishingly complex clockwork dioramas – again calling the recent *Hitman* games to mind – but *Desperados III* does rely a bit too much on its scale and overwhelming numbers to create its challenges. Early on there's a mission where you're defending a small farmhouse from an attack, for instance, but instead of focusing on that one location, it's spread out across a large area, where you once again have to kill and sneak past an entire army to progress through the level.

I want to keep chasing the buzz from solving killer conundrums

BOG STANDARD

Though they're certainly impressive stealth sandboxes, none of the maps are lookers, unfortunately. There's a lot of mud, sand, and ramshackle buildings, and while the gang's journey takes them across a few regions, a lot of the maps lack a distinct visual identity. It's a shame, especially when you compare it to *Shadow Tactics*, where the lighting and art was so expressive, and set the mood so skilfully. There are, however, some excellent trains, and at one point you do get to set fire to a big boat in the middle of a swamp, so that's something at least.

You're in for a decently substantial 25-30 hours of tricky tactical puzzles with just the core campaign, but each mission also comes with a slew of hidden challenges to complete. The speed run objectives in particular make me balk, setting 15-minute targets for missions that took me nearly two hours to muddle my way through. There's a series of separate challenges, as well, which repurpose the maps and throw in some new goals and twists. If you find yourself hooked, you'll have more than enough to keep you going.

And I certainly am. I want to keep chasing the buzz from solving killer conundrums. I want to be able to slink through a map undetected in 15 minutes. *Desperados III* isn't judgemental and doesn't dole out scores, but I'm compelled to set myself new goals and explore routes I never went down before. I didn't use animals to do my bidding quite enough, and some part of me feels I should really rectify that. My head is full of plans that I only came up with a few missions later.

Desperados III is bigger, more boisterous and a bit less elegant than *Shadow Tactics*, but maybe that's fitting for a game about rough-and-tumble gunslingers and outlaws. To hell with restraint – give me a stick of dynamite and I'm happy. Failing my way through its frontier towns, rickety homesteads, and bleak swamps has been a treat that's only caused me to scream into a pillow in frustration a couple of times. And it's all worth it when a scheme comes together, and I get to feel like the slickest cowboy on the prairie. ■

PC GAMER VERDICT

Desperados III **turns the Wild West into a brilliant tactical playground that will fill you with lead over and over again.**

86

UNDEAD REDEMPTION

Exploring the Frontiersman's afterlife in WEST OF DEAD. *By Phil Iwaniuk*

I've never been so pleased to see a witch. Wearing an antlered skull, and emitting the kind of presence you feel long before you see, "like a storm rolling in" according to Ron Perlman's tar-thick voiceover, in another game she might be an end-of-level boss. In *West of Dead*, a roguelike set in a lugubrious wild west underworld, your interactions with her are the only persistent progress you can make.

It always begins in the bar. However deep you get through the crypts, the snowcapped wilds where dogs prowl, the deepest mines of purgatory, death spits you right back here, minus whatever weapons, upgrades and abilities you picked up on your last run. So you dust yourself off and head down into the crypts all over again, picking up a couple of level 1 firearms for company.

It's only ever a few corners before the gunfire starts. *West of Dead*'s combat marries twin-stick shooting to a cover system, and throws in a few extra tactical wrinkles like lights in some rooms that stun nearby enemies and loot charms that might, say, halve your reload time or recover some health if you manage to dive into cover soon after taking the hit.

My first two or three runs in the Crypts felt like stumbling disasters, but gradually the pace and nuance of the combat started to sink in. I noticed exactly how many hits it took from my six-shooter to stun gun-toting enemies, and how many shots from them it took to destroy the cover I tended to cower behind. I realised that the zombie-like melee foes tended to follow you back into the previous corridor, where they're easier to takedown.

Only a frame-perfect dodge roll will stop you taking damage

West of Dead is brilliant at telegraphing every small detail of combat, from the moment an enemy's alerted to your presence to the moment they've locked their aim on you and only a frame-perfect dodge roll will stop you taking damage if you're not behind cover. When all the timings permeate, you start to play reflexively, rather than consciously. You're always in cover, always aware of how many empty chambers are in each gun, always looking for the next safe place to roll into.

Those fundamentals are built upon in each subsequent area as different enemy types – the hounds in the second map can absolutely fuck off, by the way – force you into different strategies, and thanks to that perma-death mechanic each fight feels a bit more meaningful than the last, especially when they involve giant bags of biceps whose butcher blades can kill you in one hit, or huge sacks of pus who sprint at you, ready to explode as soon as they get close enough to really worsen your day.

NEED TO KNOW

WHAT IS IT?
A western roguelike twin-stick shooter

EXPECT TO PAY
£15.50

DEVELOPER
Upstream Arcade

PUBLISHER
Raw Fury

REVIEWED ON
i7 9700K, RTX 2080 TI, 16GB RAM

MULTIPLAYER
No

LINK
bit.ly/2YeXXxg

YOU'RE IN HELL, BOY

If *West of Dead*'s combat wasn't sewn so artfully into that enigmatic world, though, it wouldn't be anything like as easy to hit 'New Run' after another heartbreaker down the Mines. The visuals are arresting, and appear to be true cel-shaded, from objects to lighting. Hearing Hellboy's voice while you're inhabiting a shadowy underworld of inky black outlines feels very Mike Mignola, and the sombre guitar lines, circling crows, and whiskey-gargling voiceover build a genuine sense of atmosphere.

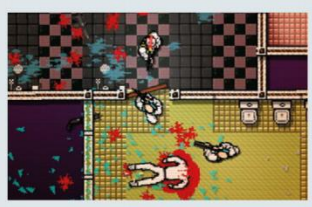
It's not just about beating the game, but understanding it. Those twin motivations keep frustration at bay longer than might otherwise happen in game with such unflinching disregard for your sense of progression. But, of course, frustration does eventually arrive. On the rare occasions you can point the finger at the game itself, the camera work and lighting are the culprits. Particularly when backing out of an arena, the zoom and focal point can occasionally go a bit haywire.

Other games have explored the same themes and mechanics as *West of Dead*, but rarely has it all come together with such cohesion. The fight's always fair in here, however difficult it may be, and it always feels like you're enduring it for a reason. The drip-feed of information's expertly judged, and the haunting Purgatory, Wyoming, backdrop it plays out on has a way of getting under your skin. ■

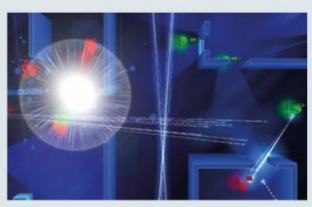
PLAY IT AGAIN

Three games* West of Dead *made us want to re-explore

1 BASTION
Two guns, two abilities, narration in a southern drawl. An unsung classic.



2 HOTLINE MIAMI
If at first you don't succeed, pretend you were playing it for the soundtrack.

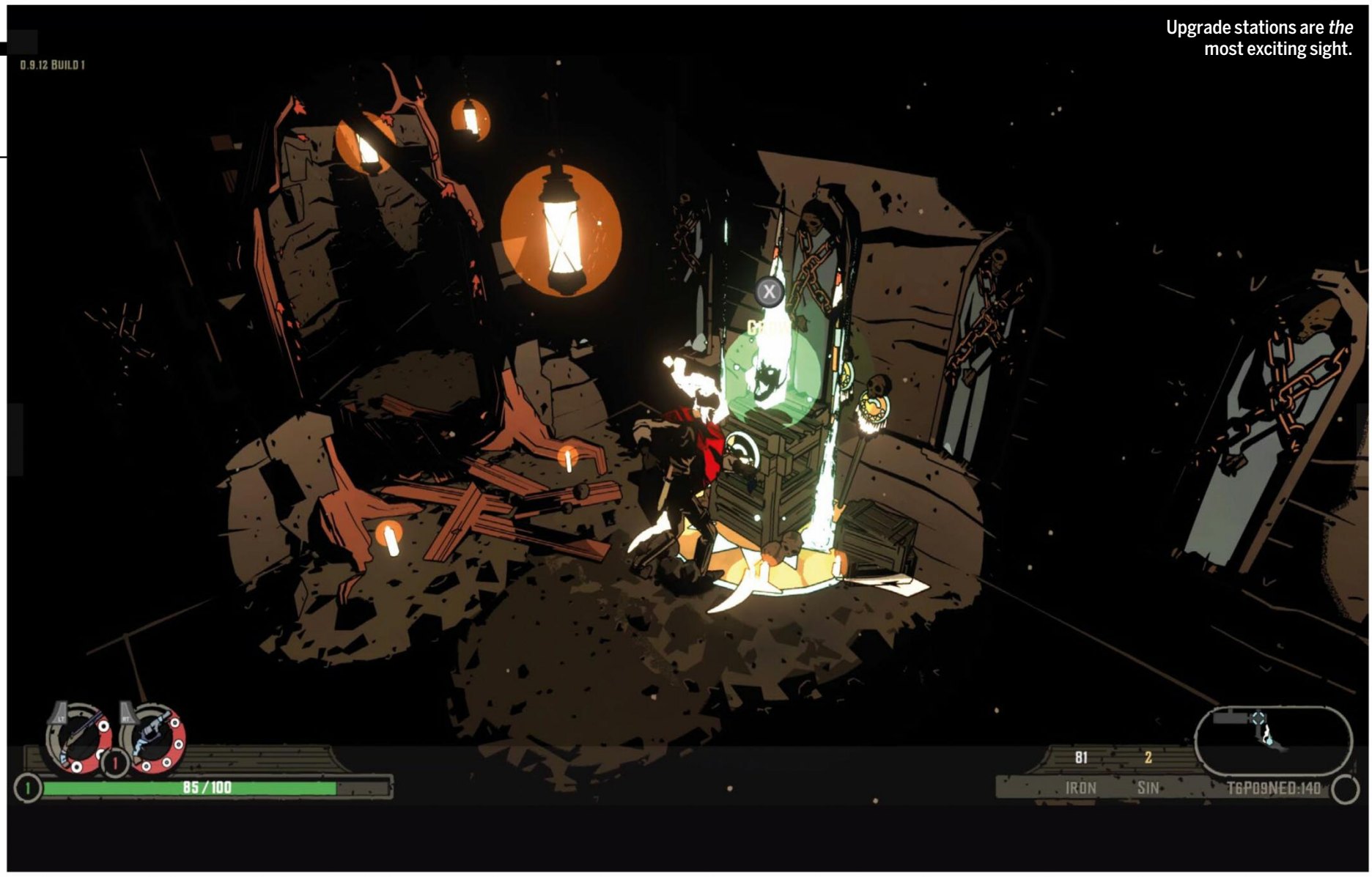


3 FROZEN SYNAPSE
Tactical isometric cover shooting, in meticulous turn-based fashion.

PC GAMER VERDICT

West of Dead is a fine balancing act of challenge and intrigue, with stabiliser wheels c/o Ron Perlman's voice.

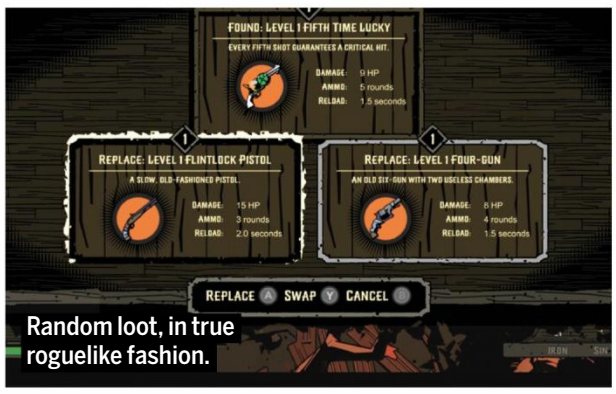
83



Upgrade stations are *the* most exciting sight.

Back at the bar again. I'm really one of the regulars here.

Transitioning from corridors into rooms can cause camera headaches.



Random loot, in true roguelike fashion.

Out in the open: not advisable. I almost certainly died.

OLD SCHOOL

JRPG favourite PERSONA 4 GOLDEN has aged like a fine malt. *By Chris Schilling*

Starting a new school is a difficult time for anyone. But the teenaged protagonist of Atlus's sprawling JRPG has it particularly tough. Having moved from the bustle and bright lights of Tokyo to the supposed rural calm of Inaba, he's barely unpacked his bags before a series of gruesome murders shocks the sleepy town. So he bands together with a group of classmates, each holding supernatural powers, to investigate this disturbing phenomenon.

First impressions aren't especially promising. This is, after all, a port of a port: it's based on the eight-year-old PS Vita version, which was a refined edition of the 2008 PS2 original. As such, it's showing its age visually, even if strong art design mostly compensates for its technical shortcomings. And it's still a slow starter: *Golden* streamlines the original's infamously languid introduction, but it's still a good couple of hours before the training wheels come off and you're given full control. You'll need a bit of patience before you get to see what makes the game so very special.

Eventually, you'll be able to decide exactly what you do outside school hours, and it's not long before you'll be spoilt for choice. The game sometimes follows you into lessons, where you'll be invited to answer a multiple-choice question for small boosts to your character's social qualities. These in turn open up additional extra-curricular activities: with a high Knowledge stat, you'll sail through exams, or be able to take a part-time job as a translator to earn extra cash. Boost Courage by eating a spicy dish at a Chinese diner and eventually you'll be brave enough to visit the shrine at night.

Combat is brisk and engaging without being especially innovative

VIDEO NASTY

They'll also boost your social links, which are your way of deepening your bonds with friends. This unlocks extra dialogue options, but more importantly, feeds into the other half of the game. Each time one of your peers disappears, you have several days to prepare to save them before they're gone forever. For each rescue attempt, you'll venture inside a shadow world which is accessed through a television set. Here, you'll explore rooms and corridors of multi-floor mansions, attacking patrolling shadows that transform into a range of outlandish creatures to be fought in turn-based combat.

NEED TO KNOW

WHAT IS IT?
A port of the enhanced PS Vita version of one of the best PS2-era JRPGs

EXPECT TO PAY
£20

DEVELOPER
Atlus

PUBLISHER
Atlus

REVIEWED ON
Intel Core i3-8350K CPU, 12GB RAM, GeForce GTX 1060

MULTIPLAYER
No

LINK
atlus.com/atlus-titles/persona4-golden/

You can attack with weapons made by the local blacksmith, but you'll do more damage by summoning Personas: supernatural projections empowered by the social links you've made. Over time, you'll amass dozens of these, gaining the ability to fuse two or more to make stronger and more versatile summons.

Combat is brisk and engaging without being especially innovative. Targeting an opponent's elemental weakness lets you take another shot at them, while you can encourage your party to pile onto downed enemies (amusingly prompting them to rush in and disappear inside a traditional cartoon fight cloud). Yet even minor actions are imbued with greater meaning: when a friend extends a hand to pick you up off the floor, you think to the time you spent talking nonsense on the roof after school or over a beef bowl in the evening. Their Personas, too, are a reminder of the struggle they've overcome; each victim's dungeon represents an internal prison of their own making, where their darkest or most secret thoughts and impulses manifest as dangerous shadow entities. By rescuing each victim, you empower them not only to accept their flaws, but to welcome them into their hearts – and thus their individual Personas are born.

Over 60 hours, you'll settle into the game's more-ish routines and enjoy your time in Inaba more and more. Despite the fantastical elements, *Persona 4: Golden* captures the challenges and embarrassments of adolescence in a way that feels true, while giving you a mystery to solve as a bonus. It may be getting on a bit, but the belated arrival on PC of one of the finest contemporary JRPGs is extremely welcome. ■

WATCHING THE DETECTIVES *Introducing... the Investigation Team*

YOSUKE
Arcana: The Magician
Loyal, accident-prone, considers himself a ladies' man. He isn't.

CHIE
Arcana: The Chariot
Tomboyish, likes kung-fu and steak. Can be a bit full-on at times.

YUKIKO
Arcana: The Priestess
Quiet, shy, intelligent and prone to giggle fits. A terrible cook.

KANJI
Arcana: The Emperor
Archetypal tough guy with a heart of gold. Easily flustered.

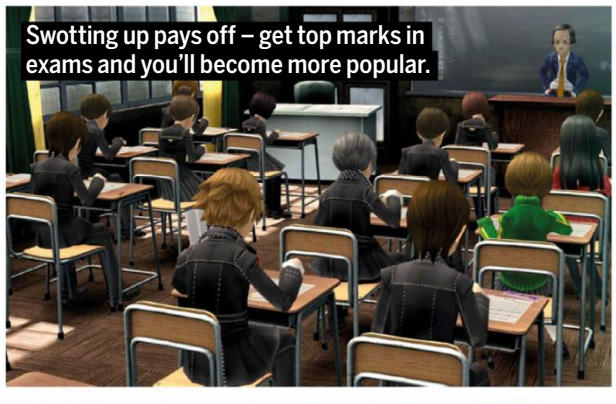
PC GAMER VERDICT

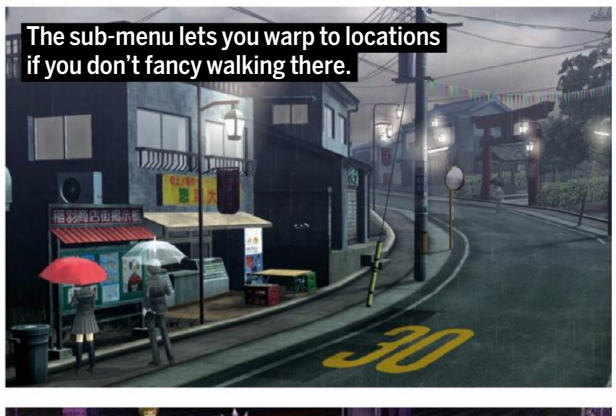
A bare-bones refit, but this remains a captivating JRPG, marrying drama with stylish demon battling.

87

Teddie, a sentient empty mascot suit – really – is your guide to the TV realm.

The day-care centre is one of the more lucrative part-time jobs.


Swotting up pays off – get top marks in exams and you'll become more popular.



The sub-menu lets you warp to locations if you don't fancy walking there.

Japanese and English audio is available. The dub's not bad.

COOL TITLES FOR NO CASH by Tom Sykes

You can also construct buildings to support your crops.

Research goals reward you with much-needed money.

Every so often, Earth will send you a shipment of veggie seeds.

LIFE ON MARS

Growing veggies on Mars with the enriching RED PLANET FARMING

Mars is not the best place to grow a cabbage, but needs must in a world in which humanity has finally made camp on the red planet. That's the premise of *Red Planet Farming*, which puts you in the role of agricultural director for Mars. You're not expanding the Martian outposts, instead you're claiming empty plots, planting potatoes and beans and whatnot, and trying your hardest to keep them alive, year by year.

Compared to more complex building games, *Red Planet* is eminently approachable. By focusing on *part* of the expansion process, rather than the whole kaboodle, it's far less daunting to the city-building neophyte (raises hand). It helps that the game is turn-based, giving you the time to really mull things over, and that it's set on a series of compact 2D grids that are totally manageable in size.

In a sense, this is the city-builder as a turn-based puzzle game. Across a series of outposts, you have to grow a steadily increasing amount of food, while managing the needs of your chosen vegetables, and local hazards including cold snaps, meteor strikes, and, er, *Mars* quakes. After every year, your population will (hopefully) increase rather than plummet, while new seeds, technologies and hazards will be gradually introduced. When you've improved your first outpost, you'll be invited to manage another, on a less comfortable region of Mars. Each level brings a new environment with its own tougher challenges to overcome.

If this is a puzzle game, it's a satisfyingly freeform one

If this is a puzzle game, it's a satisfyingly freeform one that still manages to scratch a creative itch. Food can be attained in a variety of ways, from your choice of veggies – do you spring for high-earning but temporary annuals, or perennial plants that persist year by year? – to decisions about technology, with every choice taking issues of money, energy, hazards, and space into account. Town mayors will sometimes pave over your farms – a reminder that you're a middle-manager here, not some building god.

NEED TO KNOW

WHAT IS IT?
A game about farming on Mars. Matt Damon sold separately

EXPECT TO PAY
Free

DEVELOPER
Nina Demirjian, Sean Park, Sean Porio

PUBLISHER
Nina Demirjian, Sean Park, Sean Porio

REVIEWED ON
AMD A4-6300@3.7GHz, 6GB RAM, GeForce GT 610

MULTIPLAYER
No

LINK
bit.ly/RedPlanetFarming

As you play, snippets of newspaper articles, and interjections by your officious underling, add a pinch of flavour to a game that feels vaguely educational, while still maintaining a subtle sense of humour. These snippets are cute and informative, but the articles do repeat after a while – as does the game after you've set up farms on all four outposts. When you've seen everything *Red Planet* has to offer, you can choose to keep building on the established outposts, but the challenge falls away eventually.

Red Planet Farming really pulled me in, surprisingly so. Even with its streamlined take on town expansion, and the fact that you never actually *see* any of your settlers, you can still feel the weight of your decisions, as you anxiously await the results of the population counter, after every year. Choosing to plant beans or peanuts can be a life-or-death decision when you're growing crops in such an inhospitable environment. ■

PC GAMER VERDICT

A smartly streamlined building game where the knife-edge nature of planetary settlement still comes across.

84

DANTE'S LIBIDO

Hell is full of block puzzles in HELLTAKER

Your goal in *Helltaker* is to amass a 'harem of demon girls', by delving down through the layers of Hell. It's a potentially dodgy premise, but surprisingly OK in its execution, as the women aren't really sexualised, and will tag along for their own reasons (including to hang out and play strategy games). This is a wacky, self-aware underworld in the manner of the *Disgaea* series, only with *Sokoban*-style puzzling instead of tactical battles.

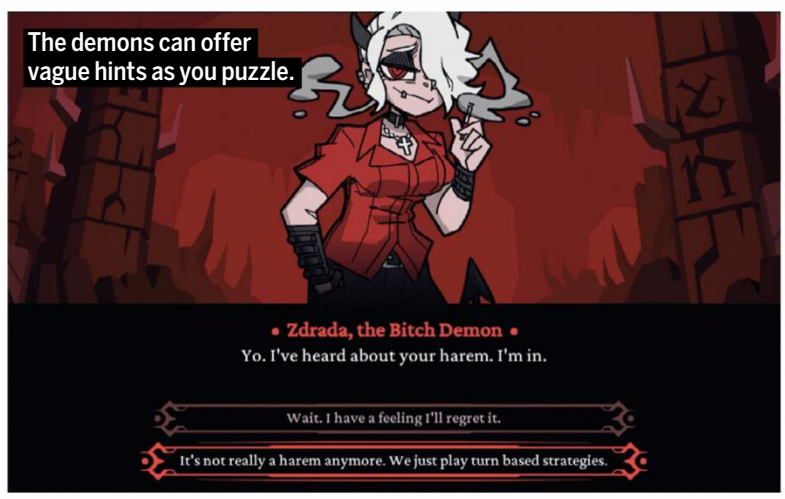
I do like a good *Sokoban* game, and *Helltaker*'s simple, effective mechanics did scratch that block-pushing itch. With a limited number of moves, you have to collect a key and reach a lock on each stage, while avoiding timed traps and bashing any skeletons that stand in your way. After clearing a level, you also have to make the correct (not really obvious) dialogue option, or else you have to play the damned thing again.

If that sounds frustrating (and it is), it's nothing compared to the climactic level, which takes the form of a rhythmic battle against a laser-flinging boss. Suddenly, in its final moments, you're playing a difficult real-time action game – it's a surprising twist, certainly, but it's also a maddening one.

While it's refreshing for a turn-based puzzler to be given such a lavish presentation, when it comes to its mechanics, *Helltaker* is a little uninspired and lacking in features compared to the best the genre has to offer – I've been spoiled by *PuzzleScript*'s undo feature, essentially. To an extent, it makes up for it with its puzzles, and colourful cast of characters, but this still feels like an odd mash-up that doesn't really excel in any area. ■

60

Stepping on a trap will waste two precious turns.



The demons can offer vague hints as you puzzle.

NEED TO KNOW

EXPECT TO PAY	DEVELOPER	LINK
Free	vanripper	bit.ly/2AvhRLw

MACIN-GOSH

SPECTACLE is a sight for sore eyes

***Spectacle*, like its sci-fi predecessor *Infested*, is an adventure game inspired by the old 'MacVenture' series, where first-person puzzles and gory deaths lurked round nearly every corner. As you might expect, it's an old-fashioned game, with one or two dated quirks – but it's also ambitious, huge, and somehow free.**

You play as a traveller from Earth who becomes trapped in a fantasy world, after running into a sinister magician. To get home, you'll need to stuff your pockets with items, and your head with magical spells – before bashing that head against heaps of difficult puzzles.

You remember the old adventure games, before every verb was compressed to 'use', and all the unfair dead ends were sanded away? *Spectacle* adds them back in, but in a way that, largely, works. There are a load of grisly deaths to discover, from snake attacks to deadly traps. However, after witnessing them, you're simply restored to the previous screen. Meanwhile, it is a bit of a pain having to fussily switch between verbs as you explore the sizeable environment, but not so much that it ever becomes a major problem.

Where *Spectacle* excels is with its whimsical, Middle-East-themed fantasy world, which is brought to life with pixel art and chiptunes. There's a lot of, well, *spectacle* crammed into the game world, from those enjoyable monster encounters, to a handful of impressive set-pieces, and even the changing time of day – the sun will actually rise and set.

While it's inspired by a classic series, *Spectacle* does more than enough to escape its shadow. It feels like an evolution, rather than an aping of its inspiration. ■

84

Deaths here are really just fun endings to collect.

You're given spells that can advance the time of day.

NEED TO KNOW

EXPECT TO PAY	DEVELOPER	LINK
Free	GrahfMetal	grahfmetal.itch.io

OLD GAMES REVISITED by Matthew Elliott

Because kings killing clergymen always ends well.

OUBLIETTES PLAY

Learning new ways to hate the landed gentry in CRUSADER KINGS II

Play enough *Total War* and somebody in one of the internet's shrouded back alleys will offer you up some tasty *Crusader Kings II*. "Did you enjoy how your heir became a sinister embarrassment in *Medieval II*? Ooh, then you are going to totally love this." The more characterful elements of Creative Assembly's grand strategy game feel like a gateway drug for Paradox's deeper, more humane family affair.

The only problem is that it's an extremely difficult drug to understand. Is it a suppository? Do I inject it? Maybe both? Fire up *Crusader Kings II* and you're faced with a tapestry of messages, buttons, modes and map types. There is a tutorial of sorts, but it's a lot like being introduced to a complicated old CMS by a tired civil servant who'd rather be crying in the toilet. More frighteningly, even the YouTube guides explaining the game are intimidating. One video boasts of being "under 30 minutes" and it still didn't have time to cover wars, plots, or much of the game's vernacular. I'm not alone, apparently – well over a half a million similarly desperate souls have watched the video.

There's a 'but' coming, though. This menacing complexity is exactly what makes *Crusader Kings II* so unique. Expecting to enjoy it without investing the time to learn its systems is like armpit-farting Rule Britannia at the Proms and demanding a standing ovation. With that in mind, I do what every new *Crusader Kings* player does, and play as King Murchad of Mumu, who A) has the sort of name that sounds like a 1990s acid house track by the KLF or something and B) is one of the easiest starts in the game. It's the reason the Emerald Isle is known by veteran players as 'Noob Ireland'. Unifying the disparate counties is a worthwhile starter goal, and one that can lead to the history-bothering colonisation of Britain, too. With my basic understanding of the game and unscrupulous approach to stewardship, nothing can go wrong.

The Emerald Isle is known by veteran players as 'Noob Ireland'

NEED TO KNOW

WHAT IS IT?
Game of Thrones meets Days of our Lives

EXPECT TO PAY
Free

DEVELOPER
Paradox Interactive

PUBLISHER
In-house

REVIEWED ON
Intel Core i7-7700 CUP @ 3.60GHz, 16 GB RAM, NVIDIA GeForce GTX 1070, Windows 10

MULTIPLAYER
Yes

LINK
bit.ly/2YHSOwH

ROYAL FLUSH

Before I inevitably prove the above to be incorrect, I set about marrying off my king and his son. I tweak my council by firing the people who hate me (a king needs to be loved) and handing out nonsense titles to people I want to keep sweet. I push weak claims, chuck dissenters in my oubliette, and invent reasons for invading my neighbours. And it's all going wonderfully well, until one of my lords pushes the cause for elective monarchy. I've already spent valuable seconds preparing my son Brian to be in charge so I impolitely decline, plunging the country into civil war. My forces are crushed and I expect a game over screen – then I realise that's not how *Crusader Kings* works. My king isn't dead – just humiliated. Brian might never get his shot at the big time, and so far even Noob Ireland is too much for me, but I've learnt a lesson: let the people have what they want unless you have enough troops to ignore them. ■

PC GAMER VERDICT

One game and I'm a *Crusader Kings II* dynastic drug dealer. Best history hit you'll ever have.

85

BLIGHTMARE

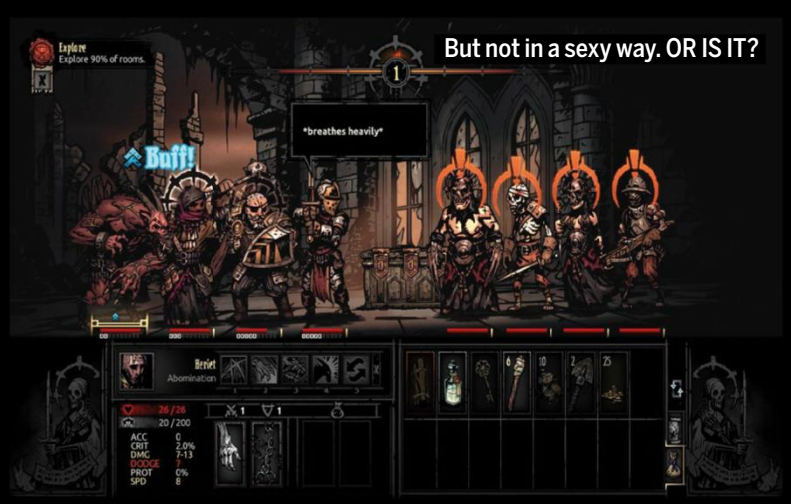
Into the depths of DARKEST DUNGEON

On the face of it, things don't get much grimmer than *Darkest Dungeon*. It opens with eldrich horror, suicide and ruin. It's darker than a burlap sack of smashed toys. There's even a warning about how terrible things are likely to get. But in practice, it's so glum that it verges on black comedy. Just when you think things can't get any worse, they do, often in ways that are so hopeless that it feels slapstick. Not only do characters die, but the horror of their exertions afflicts them with all manner of stress-based maladies. They get fearful, selfish and phobic.

In my playthrough I was forced to put my A Team into fantasy rehab while I sent Team Backup Plan into the wilds to explore. I spent ten desperate minutes trying to keep my vestal battle nun alive long enough to escape, only to have her die of hunger immediately after. Which caused my highwayman to go mad and stop obeying my commands. Which caused my plague doctor to have a nervous breakdown. In the end, only two of the characters survived long enough to escape the fight and one died of a heart attack immediately afterwards. Swap out the rabid dogs and coronaries for custard pies and pratfalls, and you basically have a Three Stooges sketch. But if anything, the awfulness of it all just makes me want to go back in and delve deeper. Whereas most games make you lament your failures, *Darkest Dungeon* makes me want to tell strangers at bus stops about the things my favourite crusader is frightened of. I found myself especially attached to my shapeshifting abomination, who only seemed to get more focussed as more things went wrong. On the downside, every time he transformed, the rest of the team shit the bed. ■

89

Don't be fooled. She died moments later.



But not in a sexy way. OR IS IT?

NEED TO KNOW

EXPECT TO PAY	DEVELOPER	PUBLISHER
£19	Red Hook Studios	In-house

Some of the most satisfying lightning in all of gaming.

SLAY THE SPIRE

Fantasy and deck-building games go together like Magic The Gathering and financial ruin, and that's one of many reasons *Slay the Spire* is so wonderful. It doesn't make sense at first. It's bacon bits in your banana milkshake. But the elements here are blended to perfection, which makes nailing absurd and unlikely card combos satisfying in a way that the physical equivalent so rarely is. And, best of all, those stacked attacks won't make a human player swipe their cards off the table in petulant rage. The game's roguelike elements mean that every massively-OP combo also feels like just reward for the horrors you've experienced. Look upon my orbs and tremble, AI nemeses. ■

90

Looks more like Ammo Crow to me.

ENTER THE GUNGEON

It takes around five seconds – enough time to choose the hunter character with a pet corgi – to fall in love with *Enter the Gungeon*. I could just write 'corgi' 100 more times and stick a score on the end. But Devolver's twin stick shooter is good enough to deserve more praise than I have time to bestow. It's fast, intuitive, and gorgeous, with crisp pixellated book-scattering animations that make me want to get banned from even more libraries. It's the sort of game where the first hour feels like it's teasing you to leave all those other games behind and spend the next 400 hours thwonking NPCs with your crossbow. And we got all the way through this without a 'pet the dog' joke. ■

86

Nothing with a mouth like that should be allowed to live.

LEGEND OF GRIMROCK

It feels strange to follow the breathless chaos of *Enter the Gungeon* with something as glacial as *Legend of Grimrock*, but such is the breadth and majesty of the underplace-themed distractions available on PC. One minute you're cartwheeling over waves of glowing bullets; the next, you're throwing stones at giant snails. Every glistening grey brick here feels like it was fired in adoration of a bygone era of gaming. If you ever wondered why we call them dungeon crawlers, this is the answer. ■

71

G-MASTER™
#MONITORS4GAMERS
by iiyama

Inspired by the curve of the human eye, the 1500R curved VA panel with 144Hz refresh rate, 1ms MPRT and the 3440x1440 resolution, guarantees superb image quality and a comfortable and very realistic viewing experience.

The height adjustable stand ensures total flexibility for your perfect screen position. Customize the screen settings using the predefined and custom gaming modes along with the Black Tuner function to give you total control over the dark scenes and make sure details are always clearly visible.

FREESYNC™ PREMIUM PRO TECHNOLOGY

This monitor supports HDR content with meticulous colour and luminance. Low input latency and low framerate compensation put an end to any tearing or stuttering issues at virtually any framerate.

ULTRA WIDE - UWQHD

UWQHD (Ultra Wide QHD) resolution offers an ultra wide (21:9) viewable area.

RED EAGLE GB3466WQSU-B1

- 34" Display
- VA Panel
- 3440x1440 Resolution
- 144Hz Refresh Rate
- 1ms Response Time
- 144Hz Refresh Rate
- Height Adjustable
- 1500R Curvature

CURVED DESIGN 1500R

Inspired by the curve of the human eye, the 1500R curvature of the screen guarantees a realistic and comfortable viewing experience allowing you to really immerse yourself in the game.

VA PANEL TECHNOLOGY

Guaranteeing excellent contrast ratio making all the nuances between the light and dark colours clearly visible.

PREDEFINED AND CUSTOM GAMING MODES

Have it just the way you want it! Choose one of the predefined gaming modes (including FPS and strategy) or customise and memorize your own settings.

BLACK TUNER

The users can adjust the brightness and the dark shades with the Black Tuner, giving greater viewing performance in shadowed areas and helping to spot the enemy earlier.

BOX AVAILABLE AT WWW.BOX.CO.UK/REDEAGLE

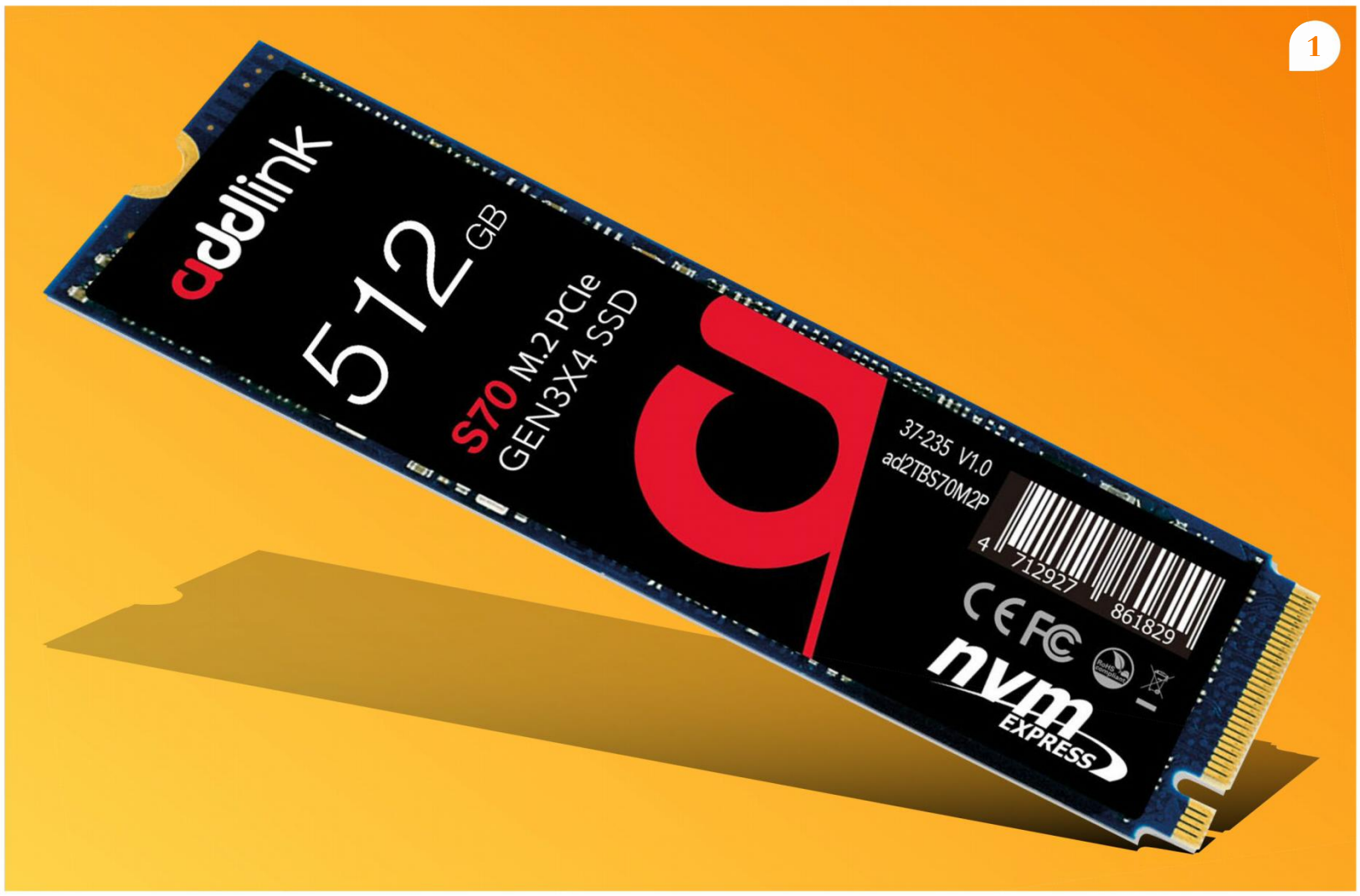
GROUP TEST

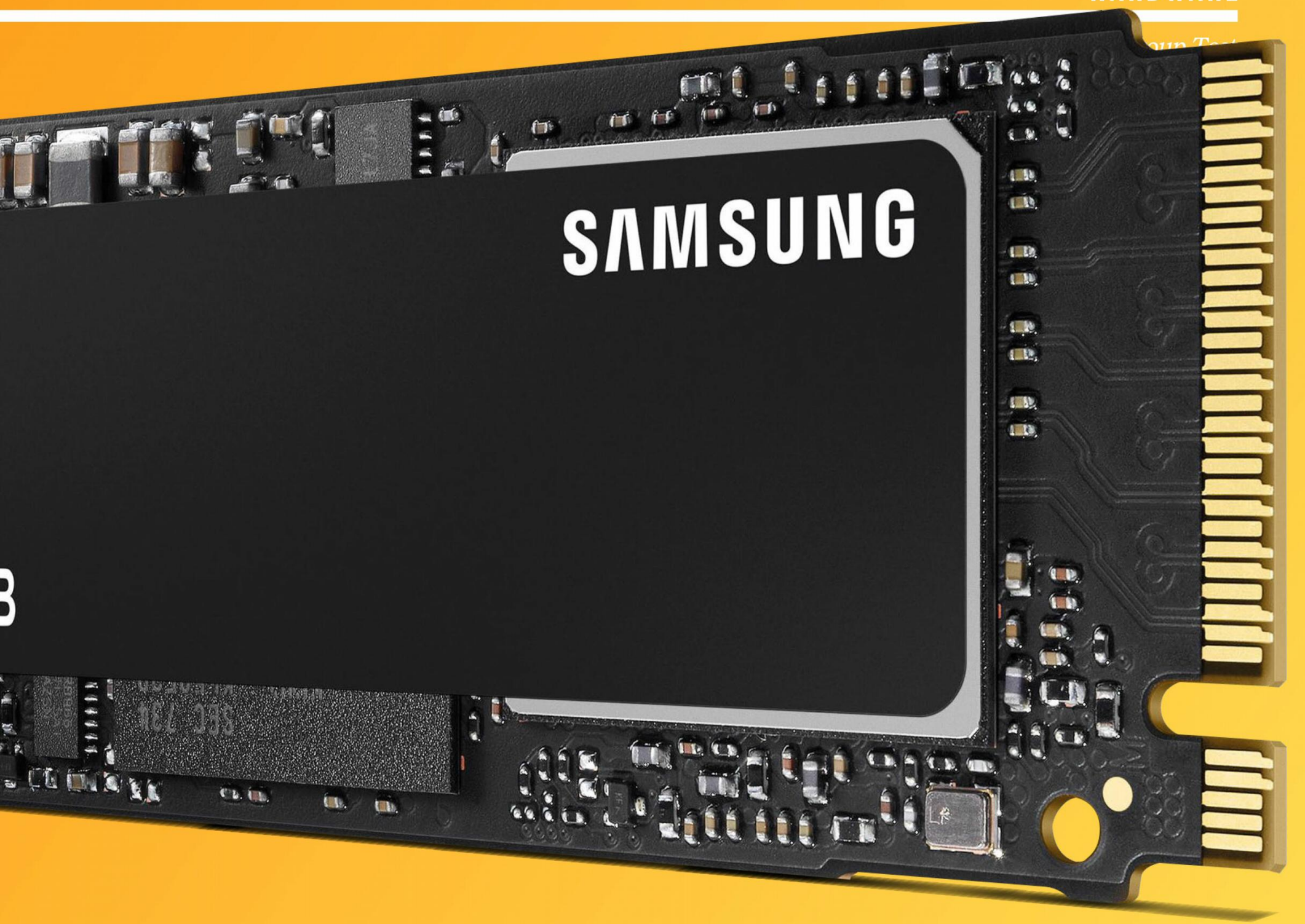
SOLID STATE DRIVES

Give your gaming PC a speed boost with the best SSD around. *By Alan Dexter*

Storage may not get the blood racing in the same way that a CPU or graphics card does, but it is an increasingly important component of any gaming system. With the next-gen consoles both looking to make the most of their PCIe SSDs, it seems only reasonable that tomorrow's games will put a greater emphasis on storage than they currently do. And as it is, there's a lot to be gained from moving up to speedy SSDs, from games loading quicker to day-to-day operations just not taking as long and Windows booting almost instantly.

When we've looked at SSDs before, you'd find this list stuffed with SATA-based drives from top-to-bottom, with potentially only one or two PCIe SSDs lurking at the high-priced extreme end. It's now becoming increasingly hard to recommend the old school 2.5-inch SSDs, simply because there isn't much of a pricing delta between the best NVMe SSDs and their SATA-based equivalents. When the cheapest 2.5-inch 1TB SATA SSD is only £10 less than the same capacity PCIe drive, and is four times slower, why would you consider going for the older technology? The only reason we can see is if you have an older motherboard





S70 512GB

ADDLINK £83

The best SSD for gaming

1 Addlink may not be a recognisable storage brand like Samsung, Western Digital, and Crucial, but that hasn't stopped it tearing through the SSD landscape to become a name to beat. This is thanks to its aggressive pricing and strong performance.

The clever bit is that that performance comes courtesy of the same technology that can be found in more expensive drives: the combo of a Phison E12 controller alongside Toshiba TLC 3D NAND makes for a potent pairing, and because they're big names, they should also give you some peace of mind. In practice you're looking at a drive that is only just behind Samsung's Evo Plus in the benchmarks, but that costs significantly less. We see that as a reasonable compromise.

The Addlink S70 512GB model is arguably the best SSD to build your system around, particularly if paired with chunkier storage. Alternatively, the 1TB version has even better write speeds of 3,000MB/s, and that can be picked up for around £140 ($120).

PC GAMER VERDICT

- ⊕ Stunning value for money
- ⊕ Top-end PCIe 3.0 performance, on par with more expensive drives
- ⊕ Excellent endurance

SPECS CAPACITY: 512GB / **CONTROLLER:** PHISON PS5012-E12 / **MEMORY:** TOSHIBA 3D TLC / **INTERFACE:** M.2 PCIE 3.0 X4 / **SEQ. READ:** 3,400MB/S / **SEQ. WRITE:** 2,000MB/S

970 Evo Plus 1TB

SAMSUNG £199

The best NVMe SSD for PCIe 3.0 speed

2 It's hard to beat Samsung's M.2 NVMe SSDs. Samsung was the first company to release such a drive and it has kept the pressure on with updates. The 970 Evo Plus is one of the fastest M.2 drives around, with only a few SSDs capable of beating it (Intel's painfully expensive Optane 905p is a notable exception). Samsung's own 970 Pro also comes out ahead at times, but frankly, it's not worth the 50 percent price increase.

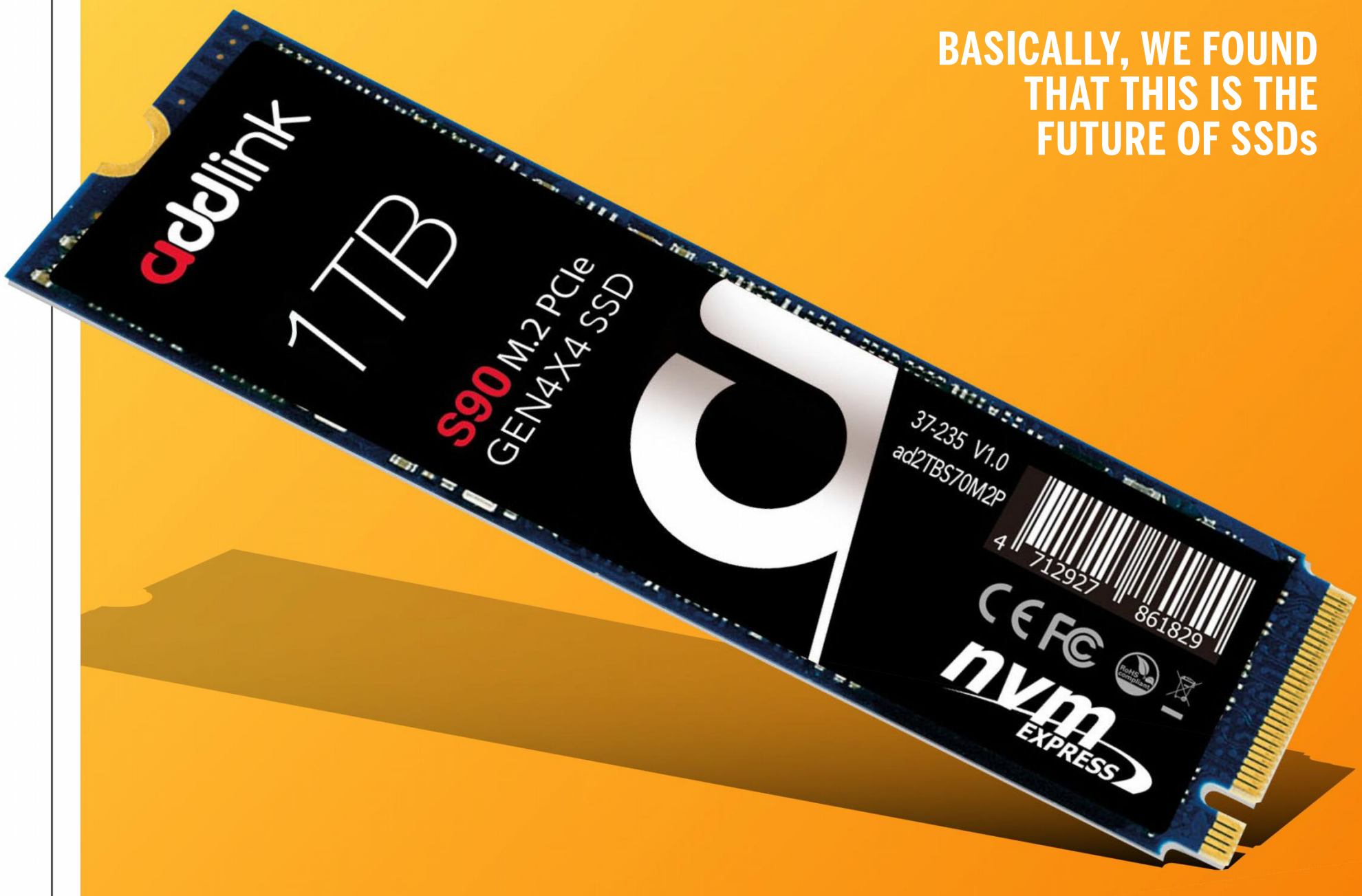
The 970 Evo Plus rates well for endurance, which bodes well for its longevity. The 1TB model is rated for 600TB of writes over five years or a whopping 329GB of writes per day. You'd need to fill up and then wipe the drive every three days to manage that many writes – well beyond any normal usage habits.

The 500GB and 2TB models are worth a look as well, if you want a lower price or more capacity, respectively. But for most users, the 1TB drive strikes the sweet spot between performance and capacity.

PC GAMER VERDICT

- ⊕ One of the quickest PCIe 3.0 SSDs money can buy
- ⊕ Decent endurance and reliability
- ⊖ Relatively expensive

SPECS CAPACITY: 1TB / **CONTROLLER:** SAMSUNG PHOENIX / **MEMORY:** SAMSUNG 3-BIT MLC / **INTERFACE:** M.2 PCIE 3.0 X4 / **SEQ. READ:** 3,400MB/S / **SEQ. WRITE:** 3,300MB/S



BASICALLY, WE FOUND THAT THIS IS THE FUTURE OF SSDs

3

S90 1TB NVMe 4.0

ADDLINK £199

The best PCIe 4.0 SSD right now

3 After the success of its S70 SSDs, it was only logical that Addlink would release a PCIe 4.0 SSD, as it's clearly the future of the format. And Addlink has managed to upset the establishment with the S90 in exactly the same way that the S70 did. You're looking at the same performance as the Corsair MP600 Force and Gigabyte Aorus NVMe, but for less cash. Those companies have dropped their prices in response, but you can still generally pick this up cheaper than those.

You'll need a X570 or B550 motherboard and a Ryzen 3000 CPU to get the most out of this drive, but if you have such a setup, you can hit 5GB/s reads and 4.3GB/s writes. If you're still rocking a Gen 3.0 motherboard, then you'll max out the bus at 3.4GB/s, which is certainly nothing to be sniffed at. Basically, we found that this is the future of SSDs, and if you're in the market for a new drive to help speed up your setup, then this should definitely be on your shortlist.

PC GAMER VERDICT

- ⊕ Seriously impressive PCIe 4.0 performance
- ⊕ Great value for money
- ⊕ Excellent endurance

SPECS CAPACITY: 1TB / **CONTROLLER:** PHISON PS5016-E16 / **MEMORY:** TOSHIBA 3D TLC / **INTERFACE:** M.2 PCIE 4.0 X4 / **SEQ. READ:** 5,000MB/S / **SEQ. WRITE:** 4,400MB/S

Rocket 2TB NVMe 4.0

SABRENT £360

The best SSD for futureproofing

4 If Addlink is the unknown underdog upsetting the market, Sabrent is the plucky upstart ready to scoop up all the plaudits. Its drives use the same controllers and NAND memory as Addlink's, but there's a little more care and attention to the overall user experience for the same amount of money.

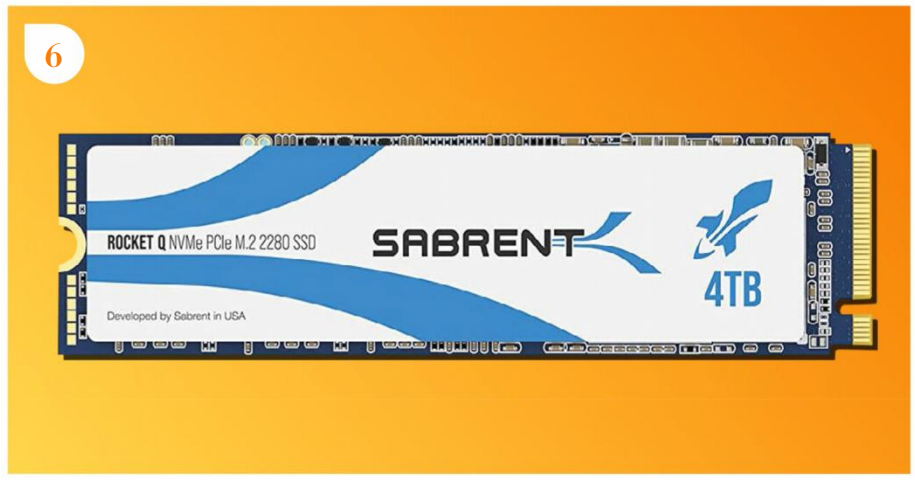
The Sabrent Rocket 2TB NVME 4.0 is a case in point, matching the Addlink S90 in terms of performance, but it ships with Acronis True Image and a funky heatsink that helps keep temperatures down in use (particularly useful if your motherboard doesn't have a heatsink for the M.2 slots).

Again you'll need an AMD Zen 2 system to hit the 5GB/s and 4.3GB/s read and write speeds, but other platforms will max out at 3.4GB/s, which isn't exactly bad. We've highlighted the 2TB model here just because it shows just how much prices are coming down, and that much space means you won't need a data drive to go alongside it.

PC GAMER VERDICT

- ⊕ Great performance and capacity
- ⊕ Quality heatsink
- ⊕ It's expensive – but it's actually very good value for money

SPECS CAPACITY: 2TB / **CONTROLLER:** PHISON PS5016-E16 / **MEMORY:** TOSHIBA 3D TLC / **INTERFACE:** M.2 PCIE 4.0 X4 / **SEQ. READ:** 5,000MB/S / **SEQ. WRITE:** 4,400MB/S



HOW WE TEST

SSDs make your whole system faster and more pleasant to use. But they matter for gaming, too. An SSD won't affect frame rates like your GPU or CPU, but it will make installing, booting, dying and reloading in games a faster, smoother process.

When shopping for a good SSD, one of the most important factors is the price per gigabyte. How much will you have to spend to keep a robust library of Steam games installed, ready to be played at a moment's notice? With many new games surpassing the 50GB and even 150GB mark, this becomes even more critical.

To find the best gaming SSDs, we've put them through their paces with a variety of benchmarking tools to check the claimed throughput stands, and the good news is that all the ones listed here have definitely impressed us the most.

MX500 1TB SATA

CRUCIAL £102

A great secondary storage drive

5 It may seem strange that the Crucial MX500 is the only SATA drive in this list, but when the price delta between PCIe and SATA is so small it's difficult to make any argument for the far slower technology. However, there is a hard limit on the number of M.2 slots on motherboards, so there is still a place for SATA SSDs as secondary storage.

And the Crucial MX500 is one of the best options around. With SATA's maximum theoretical bandwidth limit of 600MB/s it's about as quick as you'll get and Crucial's drives have long been among the best-value options available too. This is the most affordable 1TB SATA drive you can pick up, and would make a great second home for your Steam and Epic libraries.

It will happily function as a boot drive on systems with no M.2 sockets, or at least no bootable M.2 sockets anyways, but you will be missing out on the zippy response of your operating system running on the SSD-specific NVMe protocol.

PC GAMER VERDICT

- ⊕ One of the fastest SATA drives available today
- ⊕ Competitive price per GB
- ⊖ Slow compared to NVMe drives

SPECS CAPACITY: 1TB / **CONTROLLER:** SILICON MOTION SM2258 / **MEMORY:** MICRON TLC / **INTERFACE:** SATA 6GB/S / **SEQ. READ:** 560MB/S / **SEQ. WRITE:** 510MB/S

Rocket Q 4TB

SABRENT £670

For those needing huge capacity in the smallest of drives

6 The 4TB Sabrent Rocket Q is one of the largest NVMe drives you can buy right now, although an 8TB model of the Rocket Q is on the way as well, if you really want to splurge on your storage. As it is, this is a lot of money, but for those looking to build an extreme gaming rig, this fits the bill nicely enough.

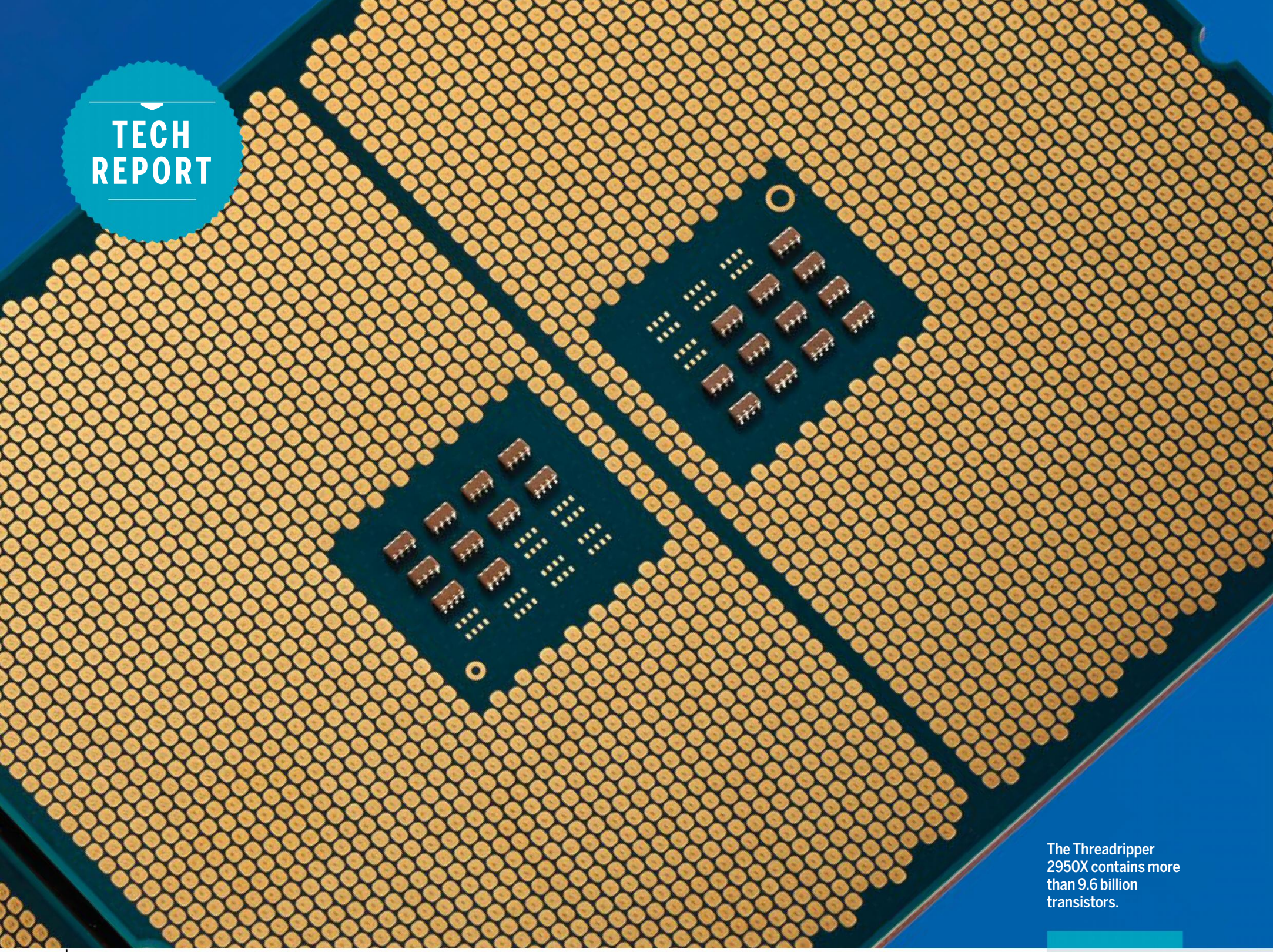
The reason Sabrent has managed to hit such a high capacity is down to the use of QLC memory, which stores four bits per memory cell. This does affect performance ever so slightly, and endurance isn't as good as TLC drives, although this is offset somewhat by the capacity on offer here. And in testing the drive performance is absolutely solid. It can't compete with the PCIe 4.0 gen drives, but if you're not rocking a AMD Zen 2 system, that's not all that much of an issue anyway.

Yes, it's expensive, but it's so big you can forget about installing games on a slower data drive, and just enjoy top performance pretty much all the time.

PC GAMER VERDICT

- ⊕ Consistently strong performance
- ⊕ 4TB of space means it's got loads of capacity to spare
- ⊖ Very expensive

SPECS CAPACITY: 4TB / **CONTROLLER:** PHISON PS5012-E12 / **MEMORY:** MICRON QLC / **INTERFACE:** M.2 PCIE 3.0 X4 / **SEQ. READ:** 3,200MB/S / **SEQ. WRITE:** 3,000MB/S



The Threadripper 2950X contains more than 9.6 billion transistors.

NO MOORE HEROES

Where are our performance gains going to come from?

Way back in 2012, you could buy a quad-core/eight thread CPU with a 3.5GHz base clock and a 3.9GHz turbo. In 2018, you could also buy a CPU with a 3.5GHz base clock and a 3.9GHz turbo, but this time it had 16 cores, and processed 32 threads simultaneously. It was a Threadripper 2950X, and was more than twice the price of 2012's Core i7-3770K.

What's going on there? Shouldn't Moore's Law, which back in 1975 (although the concept was first thought of in 1965) stated that the number of transistors in a dense integrated circuit doubles about every two years, have ensured that 2018's CPU was running at 28GHz? Sure, you can pick up a 5GHz i9, but Intel's 2020 Core i3-10100 manages four cores/eight threads at 3.6/4.3GHz, still rather close to the 2012 i7 specs.

Moore's Law has the effect of doubling computing performance every two years or so – it's Moore's Guideline really. And we're certainly not seeing things at that level any more. So why has this stagnation of performance happened, and where can we expect increases in computing performance to come from in the future?

This problem has exercised some of the gigantic brains at MIT, leading to a paper in the June edition of Science: 'What will drive computer performance after Moore's law?' by, among others, Dr Neil C Thompson of MIT's Computer Science and Artificial Intelligence Lab.

The authors identify Intel's reliance on 14nm technology since 2014, but don't leave the blame there. Miniaturisation, they say, was coming to an end anyway. "Although semiconductor technology may be able to produce transistors as small as 2nm, as a practical matter, miniaturisation may end around 5nm because of diminishing returns," the authors write in their paper. As you get closer to the atomic scale (a silicon atom measures around 0.146nm) the cost of manufacturing rises significantly.

MOORE'S LAW HAS THE EFFECT OF DOUBLING COMPUTING PERFORMANCE EVERY TWO YEARS

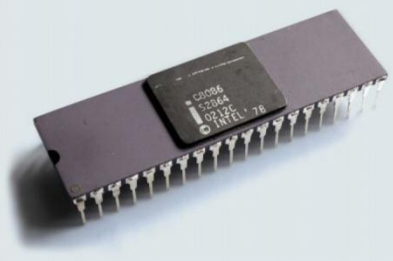
But what about core count? That's been steadily rising over the past few years, largely thanks to the efforts of AMD. Can that help us with this? "We might have a little bit of an increase in the number of cores but not that much," says Thompson. "And that's just because it is hard for pieces of

Moore info

Gordon Moore is still chairman emeritus of Intel, which he co-founded with in 1968. He had previously worked at the Shockley Semiconductor Laboratory, but left in 1959 as part of the 'traitorous eight' to start Fairchild Semiconductor.

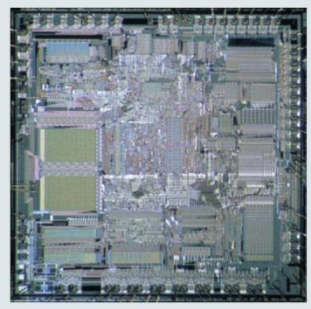
MOORE'S LAW IN ACTION

The transistor counts of these CPUs show large leaps in complexity without hitting the 18-month intervals



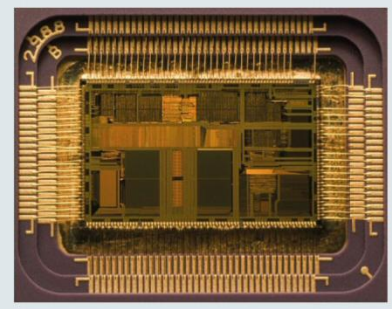
Credit: Creative Commons Attribution-Share Alike 4.0 International license. Author: Thomas Nguyen

1 Intel's 8086 chip, from 1978, had around 30,000 transistors.



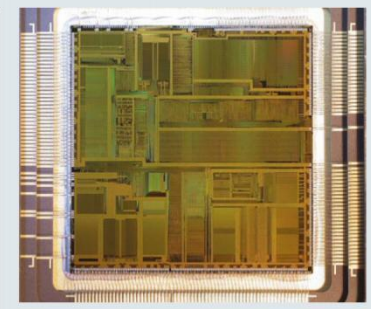
Credit: Creative Commons Attribution 3.0 Unported license. Author: Pauli Rautakorpi

2 Intel's 80286, from 1982, had around 130,000 transistors.



Credit: GNU Free Documentation License. Author: Matt Britt

3 Intel's 80486, from 1989, hits the million-transistor mark.



Credit: Creative Commons Attribution-Share Alike 3.0 Unported license. Author: Pdesousa359

4 The Pentium, four years after the 486, takes the count to 3.1 million.

software to effectively use lots and lots of cores at the same time." That's for home computers – servers, especially those involved in cloud computing and search engines, will continue to increase their core counts.

MOORE OR LESS

The thing holding CPUs back, according to Thompson, is their general-purpose nature. Specialised hardware is already creeping into our PC cases, often aimed at graphics. There are GPUs of course, and the Quick Sync core in Intel processors that does nothing but transcode video. Physics processing cards were mooted for PhysX-enabled games before Nvidia bought PhysX and bundled the functionality into its GPU API. Apple Mac Pro customers can avail themselves of an Afterburner card if they want hardware acceleration of ProRes video codecs, and specialised ASICs (application-specific integrated circuits) have cornered the market in BitCoin mining.

"I think one of the things that we're going to do quite a bit more of is design chips that are specialised for particular types of application," says Thompson, "and use those to get some speed-ups. But it isn't a replacement for the general purpose CPU which can give a lot of different things. If you look at chips, you'll see that they'll have a little specialised piece of circuitry on the chip that handles encryption, so when you're on the internet and you're trying to make a transaction secure, there could be a lot of computation involved there, but a little specialised chip does it."

Then there's software. Performance gains here will come through efficiency, as a quick experiment in Thompson et al's paper shows: a very hard sum (the multiplication of two 4096x4096 matrices) was coded in Python, and took seven hours to complete on a modern computer but using only 0.0006% of the peak performance of the machine. The same very hard sum was then coded in Java, and ran 10.8x faster. Then in C, which was 47x faster than the Python code. By tailoring the code to exploit the 18-core CPU in the test PC and its specific Intel optimisations, the very hard sum could be completed in 0.41 seconds. That's 60,000 times faster.

The above is using a general-purpose processor, so imagine you combine your optimised code with a processor that has specialised hardware for matrix multiplication, and you can go even faster still. In this post-Moore era, we may see apps and operating systems getting smaller as they become more efficient, rather than bloating all over our solid state drives and random access memory.

Say you want to send an email, and Outlook (we know, but it's a good example for this) gives you a 'Send, yes or no?' prompt. How could the computer handle that? "One thing you can do is design it from scratch," says Thompson. "You could go and find examples of people saying yes or no, and try to write a program that would recognise those things. Or you could say 'there are things like Siri and Google Assistant out there, that recognise not just yes or no but a million different things'. It probably doesn't take me very much work to write a little program that, when it hears the user say something, sends it to Google for computation and then back to me. That's a super efficient way to write your code, but a very inefficient way to do the computation, because a full voice recognition system is very complicated, and you already know it's going to be a yes or a no."

In this way, and in the face of a lack of performance gains at an engineering level, hardware and software will need to come together to ensure that the PC of the future will be faster – even if it still runs at 3.5GHz. ■

Ian Evenden

Credit: Intel

ABOVE: Gordon Moore, co-founder and former CEO of Intel. He is, much like 2000 AD's Judge Dredd, the Law.

YOUR NEXT PC

BUYER'S GUIDE

Build the best PC for your budget

KEY

Budget build

PC gaming is for everyone. Pick the parts you want to build a new, well-rounded PC for a good price.

Mid-range build

You want to run every new game at 1080p 60fps. This recommended build will see you through.

Advanced build

You're looking for the best PC on the market and superior components. But you still want to spend smart.

BUDGET BUILD

Enjoy 1080p gaming without breaking the bank

TOTAL

£849

MOTHERBOARD

B450-A Pro Max
MSI **£95**

A healthy dose of ports and PCIe SSD support has this B450 at the heart of our budget build.

PROCESSOR

Ryzen 3 3300X
AMD **£115**

AMD has packed its latest Zen 2 architecture into a speedy four-core package, and that's great for gaming.

GRAPHICS CARD

GeForce GTX 1650 Super
Gigabyte **£165**

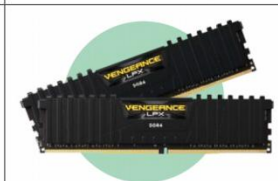
The GTX 1650 Super is much more than a rebrand of the GTX 1650, securing it the budget crown.

COOLER

Wraith Stealth
AMD **Free with the CPU**

Gone are the days when a stock cooler was little more than a bonus paperweight. AMD's Wraith Stealth delivers.

MEMORY



Vengeance 8GB DDR4 (2x4GB)
Corsair **£40**

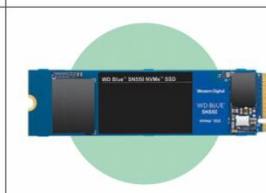
The new norm for gaming is 16GB, but dual-channel 8GB memory is enough to get by for most.

POWER SUPPLY

CX Series CX550
Corsair **£74**

Corsair's reputation for quality PSUs precedes them. You know you're in safe hands here.

SSD



WD Blue SN550 500GB
Western Digital **£67**

Just because it's a budget SSD, doesn't mean it has to be slow, as the WD SN550 proves with its speedy NVMe connectivity.

HDD

WD Blue 1TB 7200rpm
Western Digital **£37**

You don't necessarily need a HDD in 2020, but if you're a virtual hoarder, this'll give you loads of useful extra space.

CASE

Neos
BitFenix **£36**

You'll want to minimise how often you rebuild your PC, so make sure to give it a good home. This case'll do nicely.

DISPLAY

GW2280
BenQ **£105**

A 1080p60 VA monitor will see you through in style and, once you upgrade, will make a superb second monitor.

KEYBOARD

G213
Logitech **£40**

It may be a membrane switch board, but it's stylish, and well-built. Sometimes that's worth more than cheap clicky switches.

MOUSE

G102
Logitech **£35**

A classic shape delivered in a sleek shell, this mouse fits all hand sizes and grips. A solid option for the money.

HEADSET

HS35
Corsair **£40**

This headset delivers in-game with its punchy drivers and clear microphone – perfect for video calls and multiplayer alike.

MID-RANGE BUILD

Our recommended build for playing the latest games

TOTAL

£1,455

MOTHERBOARD

B450 Tomahawk Max
MSI **£120**
A reliable platform for your build, the Tomahawk Max also comes in black to complement any style.

PROCESSOR

Ryzen 5 3600X
AMD **£198**
This CPU is one of the greats, and uses the Zen 2 architecture to dominate in gaming and productivity.

GRAPHICS CARD

GeForce RTX 2060 KO GAMING
EVGA **£320**
The RTX 2060 is a taste of the good life, where frame rates are high and real-time ray tracing is possible.

COOLER

Wraith Spire
AMD **Free with the CPU**
We love a freebie, especially one as capable as the cooler included with the 3600X. This'll keep your machine running smoothly.

MEMORY

Ballistix 16GB DDR4 (2x8GB)
Crucial **£75**
With plenty of capacity at 16GB, this unembellished memory has everything you need for gaming and more.

POWER SUPPLY

CX650M
Corsair **£93**
The heart of your gaming PC is your PSU, and this 650W Corsair promises to keep your rig ticking nicely.

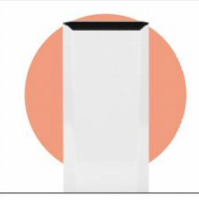
SSD

S70 1TB
Addlink **£150**
Building on a budget doesn't mean sacrificing speed—the Addlink S70 proves you can indeed have both.

HDD

WD Blue 1TB 7200rpm
Western Digital **£37**
Just like in the budget build, this HDD isn't strictly necessary, but for a pretty low price it's nice to have plenty of extra space.

CASE



Eclipse P400S TG
Phanteks **£70**
An ATX case is all you need for this build. We like this one because it's simple, functional, and really nice to look at.

DISPLAY

AOC G2590FX
AOC **£173**
Everything a PC gamer could want: 144Hz refresh rate, 1ms response time, and it's AMD FreeSync and Nvidia G-Sync compatible.

KEYBOARD

Alloy FPS
HyperX **£80**
As the name suggests, this keyboard is built like an absolute tank, with a steel frame and Cherry MX switches.

MOUSE

Model O-
Glorious **£59**
Lightweight and responsive, the Model O- has made a name for itself among streamers and pros thanks to its clever design.

HEADSET

Cloud Alpha
HyperX **£80**
Does it get any better than the HyperX Cloud Alpha? Well, yes, but not anywhere close to this sort of price point.

ADVANCED BUILD

Go above and beyond with a PC powerful enough to end worlds

TOTAL

£3,689

MOTHERBOARD

Z390 Aorus Master
Gigabyte **£247**
If you want all the bells and whistles, the Aorus Master delivers alongside Intel's high-end chipset.

PROCESSOR

Core i9 9900KF
Intel **£489**
It's one of the fastest gaming chips around and you don't need Intel's integrated graphics with a great gaming GPU in place.

GRAPHICS CARD

GeForce RTX 2080 Super XC
EVGA **£762**
The RTX 2080 Super is the more reasonably priced super high-end enthusiast graphics card out of the Nvidia skunkworks.

COOLER

Kraken X63
NZXT **£123**
One of the most stunning AIO coolers rebuilt with an updated pump and, of course, RGB lighting for more pizzazz.

MEMORY

Vengeance RGB Pro 32GB DDR4 (2x16GB) @ 3,200
Corsair **£176**
If you truly want to show off, even your system memory should be aglow in RGB.

POWER SUPPLY

HX750i 80 Plus Platinum
Corsair **£163**
Platinum doesn't just sound good, it means this PSU is rated to the highest tiers of energy efficiency, too.

SSD

WD Black SN750 1TB
Western Digital **£169**
Western Digital are back on Samsung's heels with this brilliantly fast, yet affordable, 1TB M.2 NVMe SSD.

HDD

860 QVO 2TB
Samsung **£195**
Built on QLC flash memory, it's not the quickest storage around, but it's a speedy alternative to a HDD.

CASE

600C
Corsair **£135**
If you're going big on parts, you should grab a case that has plenty of room for upgrades down the line. This one will do just fine.

DISPLAY

Nitro XV273K
Acer **£780**
This one's an easy choice – 4K and 144Hz for under a grand is an offer we can't refuse, and neither should you.

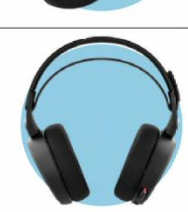
KEYBOARD

G915 Lightspeed
Logitech **£210**
Low-profile mechanical switches are just the icing on the cake that is the superb, wireless Logitech G915.

MOUSE

G502 Lightspeed
Logitech **£110**
With a lengthy battery life and a phenomenal sensor to keep you gaming at your best, the G502 is undoubtedly one of the finest.

HEADSET



Arctis 7 Wireless
SteelSeries **£130**
If you've settled on a wireless keyboard and mouse, the last thing you want is a pesky cable to your headset.

EXTRA LIFE

CONTINUED ADVENTURES IN GAMING

"Ingenuity isn't enough to beat a deck builder, you need some luck too"

Defeating heaven's finest in MONSTER TRAIN

In a recent meeting, someone described *Monster Train* as "a card game for people who've already put 200 hours into *Slay The Spire*". It's a good description. *Slay the Spire* has an understated elegance that makes *Monster Train*'s four-level arenas, multi-stage battles, and glow effects feel garish and convoluted. I won't think about *Monster Train* decks at night the way I did with *Slay the Spire*. But it's fun and new, and when a good idea and good luck come together, it feels almost as satisfying.

One difference is that you can play minions in *Monster Train*. With the right card upgrades, some of the demons you can plop down are hilariously buff. On one run, I had a guy with 90 health who could attack for 65 damage twice per turn, and that was before I cast any spells on it.

Another way *Monster Train* is different from *Slay the Spire*, though, is that it doesn't really wear you down room after room. It's a boss rush game, and a chunky demon who does 130 damage per turn can only pulverise bosses until, suddenly, he can't. When skinny Thanos floated in with over 2,000 health it was like watching a moth fight a halogen lamp. My run was over.

Ingenuity isn't enough to beat a deck builder, you need some luck too, and on my next run I finally got it. A lot of it. It was the videogame equivalent of being dealt four aces.

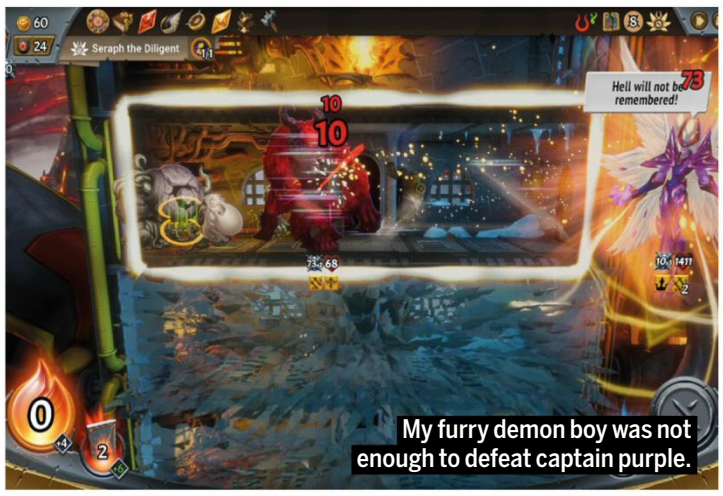
Whenever I healed my champion (a special minion that's typically the linchpin of your strategy) it would deal damage to an enemy minion. Early in the game, I picked up a card

COMPLETING THE RUN WAS PRACTICALLY A FORMALITY AT THAT POINT

TYLER WILDE

THIS MONTH
Hit the deck-building jackpot.

ALSO PLAYED
Half-Life: Alyx, *Persona 4 Golden*



called Engraft, which restores one health to a minion. It costs one energy to play, but also restores one energy, and causes an extra card to be drawn on the next turn. It's a great card if you're trying to heal your champion as often as possible, and I immediately made it even better by spending some gold to reduce its energy cost to zero. And then came the four aces moment: seconds later, a random event gave me the chance to duplicate a card five times.

STACK THEM UP

Completing the run was practically a formality at that point. Each hand I drew was flooded with Engrafts, and because they all cost zero, I gained an energy whenever I played one. Once I was done triggering my champion's damage ability by throwing Engrafts at it, I had loads of excess energy to spend on all the other cards in my hand, some of which drew more cards – that is, more Engrafts.

The digestif that completed this revenge dish was a minion: a Nameless Siren. Every time I cast a spell on her floor, she got stronger. With her hulked out accordingly. She finished off the final boss.

It wasn't quite as satisfying as beating *Slay the Spire*. It's quicker, came easier, and watching a mermaid stabbing an angel to death lacks the oomph of playing that finishing card yourself. But I did grab a screenshot, so it's not like I wasn't proud of my angel-killing machine at all. ■

"It's too often left to indies to innovate"

Making friends in SIGNS OF THE SOJOURNER

ROBIN VALENTINE

THIS MONTH
Opened up my eyes and saw the signs.

ALSO PLAYED
Orcs Must Die 2, Murder By Numbers

Developers tend to take things too literally. Most games are a pretty direct simulation of the activity they represent – whether realistic or fantastical. In shooters, you aim and click to shoot. In racing games, you steer your car and press a button to accelerate.

It's part of why many games revolve around violence – it's a relatively straightforward thing to translate that directly to the screen. But it's a real shame that so few developers take a more abstract approach.

Take *Signs of the Sojourner* – it's a game about conversations, but it doesn't consist of a series of dialogue choices – it represents social interaction through a card-based puzzle game. Different cards have different symbols, and your goal is to match with the person you're talking to. Succeed, and your interaction is positive. Fail, and it goes sideways.

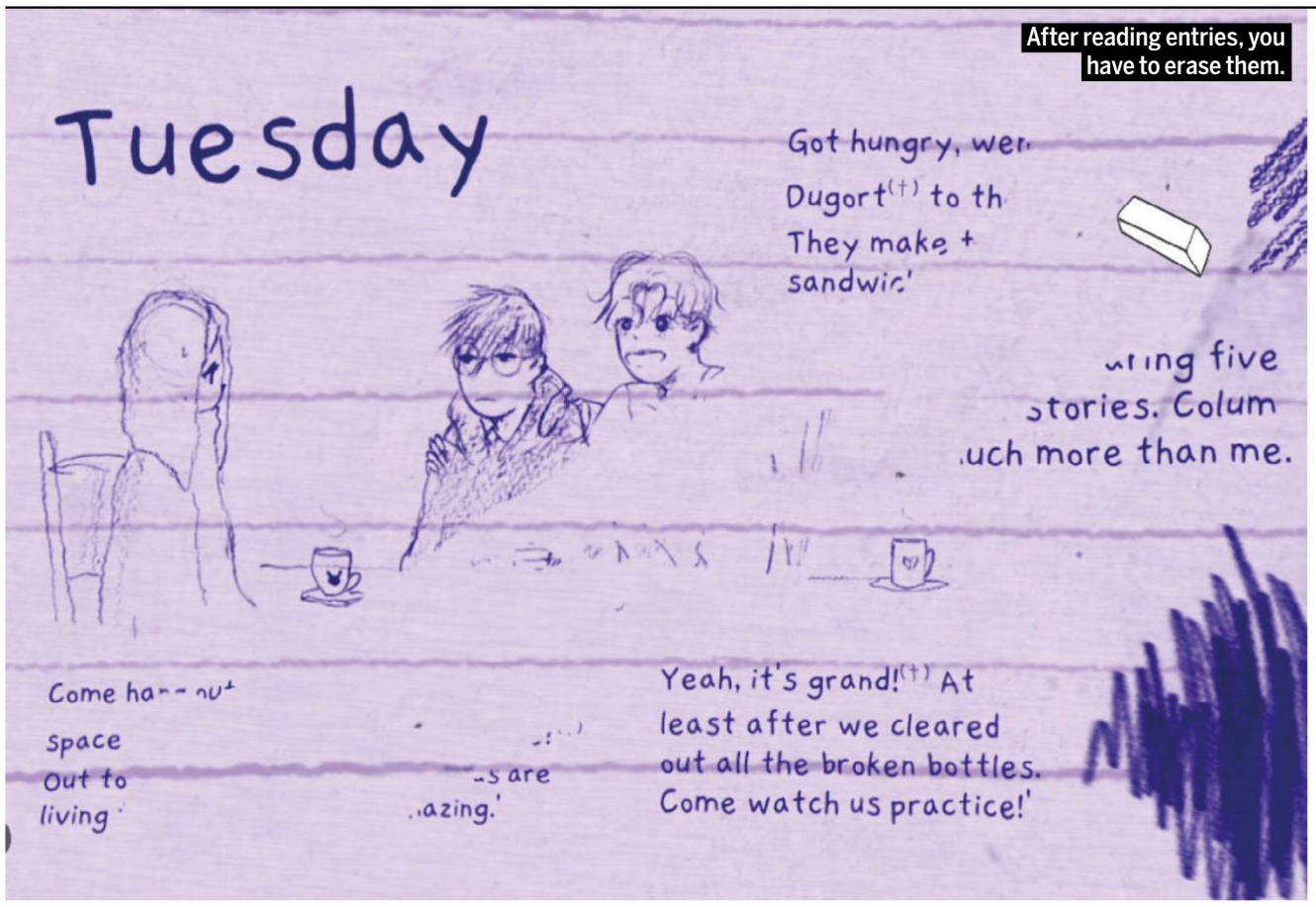
SMALL TALK

As you travel around, talking to different people, you discover that they each favour certain symbols. Some, at first, you'll find impossible to connect with. But after every conversation you forget one of your existing cards and learn one of the other person's, gradually changing your social vocabulary.

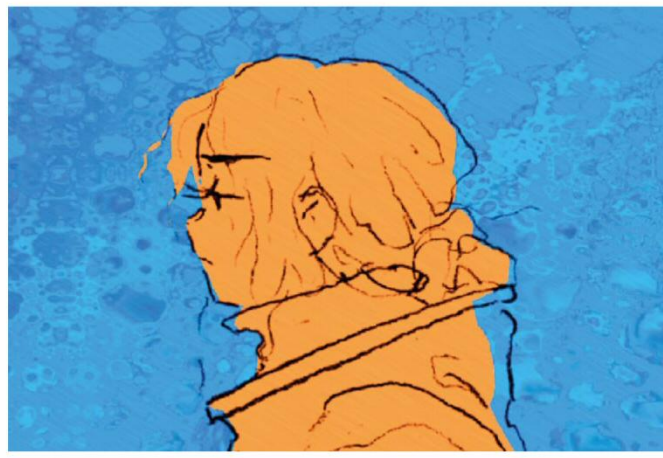
It's impossible to please everyone – create a deck too muddled and it won't match with anyone. The question becomes: who in this world do you want to get along with, and who can you accept leaving behind?

Despite being so abstract, the card mechanic is incredibly evocative. At the start of the game, for example, you have a childhood friend whose deck perfectly aligns with yours – almost any card you pick will succeed. But as you travel, talking to new people and trying new things, you change and he, staying home, doesn't. Connecting with him becomes more and more difficult – unless you make a concerted effort to cling on to your old self, you'll inevitably drift apart. What a powerful, universal human experience to be conjured by a few rectangles with shapes on them.

It's a great reminder of the gulf that exists between what games could be and what they currently are. As big budget titles push for ever deeper simulation and greater graphical fidelity, it's too often left to indies to innovate. What great experiences are we missing out on because so many studios are afraid to get abstract? ■



After reading entries, you have to erase them.



It's a poignant story, uniquely told.

"A story about a being young, queer and trying to get your life together"

Learning that sometimes you have to destroy to rebuild in IF FOUND...

There's a clever twist to this indie visual novel: the only way to read the story is to erase it. Taking place within a series of diary pages and sketchy images, your mouse doubles as an eraser, and you must wipe out each of the journal's entries to continue. When I first started to wipe out the written words and doodles, it felt oddly wrong, like I was destroying something precious belonging to someone else. But *If Found...* uses the act of erasing as more than a destructive force.

The diary you're reading belongs to Kasio, a young trans woman returning home to a small rural Irish town in 1993. After a brutal falling out with her mother, Kasio moves in with her best friend Colum, his boyfriend Jack, and their band mate Shans in the hopes of finding a safe haven from the freezing weather of Ireland's Achill Island.

Kasio's journal entries are intertwined with another story, a sci-fi adventure of an astronaut in the future named Cassiopea who is on a space mission to stop an anomaly from tearing the entire universe apart. Its magical realism serves to heighten the gravity of Kasio's situation. It's a coming-of-age story about a being young, queer and trying to get your life together.

RACHEL WATTS

THIS MONTH
Became versed in the most rural of Irish slang.

ALSO PLAYED
Umurangi Generation, Children of Morta

Erasing images acts as a transition from one scene to the next, more sketches and words revealing themselves as you peel back Kasio's memories. It's a great way of making the story more dynamic rather than the standard clicking of a visual novel. In one scene I'm wiping away to see more clearly in a heavy rainstorm, and in another, I have to erase layers of a crowd to get to the stage at a blood-pumping punk concert. Sometimes my swipes instead add colour to the images, my eraser turning, temporarily, into a magical paintbrush.

ERASING IMAGES ACTS AS A TRANSITION FROM ONE SCENE TO THE NEXT

Many of the pages within Kasio's diary have been aggressively scribbled out. Whole paragraphs, pictures, and people scrawled over, as Kasio herself tries to erase what she has written in her own destructive way. You use the eraser to first remove these scribbles so you can read what's underneath, and when you're done reading you then erase that too. Wiping away the scribbles feels like you're removing the anger and painful memories within the pages – and then you have to continue to erase the memory itself.

CORNERS OF MY MIND

If Found... has some raw, hard-hitting moments, but it's also artistic, vibrant, and hopeful for the future. A queer story made by queer creators, it has both gut-wrenching authenticity and beautiful moments of hope in its story. I felt that it's erasing mechanic was not just removing Kasio's memories but helping to absolve her anger with gentleness and care. *If Found...* understands that people who go through trauma need time to heal and have a fresh start. Erasing Kasio's words means letting go of the past to make room for a new beginning. ■

"Sending plates and vases tumbling to the floor to smash is always good"

Feline great about needless destruction in CATLATERAL DAMAGE

If you hate bungalows, you'll love this game. Stupid structures. They're literally half a house! One bungalow on top of another bungalow, now *that's* a legitimate living space. Except it's *not*, because there wouldn't be any stairs, so you wouldn't be able to move between floors. Bloody bungalows.

I find playing *Catlateral Damage* to be very cat-thartic in this respect. It's an FPDCS (First-Person Destructive Cat Simulator) where you're tasked with little more than making as much mess as possible, and six of the nine environments are bungalows. Seven if you include the supermarket which, to be honest, is basically the two worst evils of the world (capitalism and bungalows) brought together in unholy matrimony. Actually, the museum and creepy lab are technically bungalows too, as there are no stairs, so that's nine. Nine procedurally-generated bungalows to completely and utterly ruin.

Making a huge mess without consequences is great fun in any context, a fact which I'm sure lies at the heart of my enjoyment. While Litterbox Mode is great fun – just bound around the environment causing fair amounts of chaos, with no pressure or limitations – it's Objective Mode that I find myself coming back to again and again. Sending plates and vases tumbling to the floor to smash is always good, but having a time limit and a target amount of damage to cause adds a gentle, welcome pressure to proceedings. There's just so much wanton destruction involved that I'm actually surprised the game wasn't named *Just Claws* (you can have that one for the sequel guys, just stick my name in the credits).

LUKE KEMP

THIS MONTH
Raged against materialism as only a cat can.

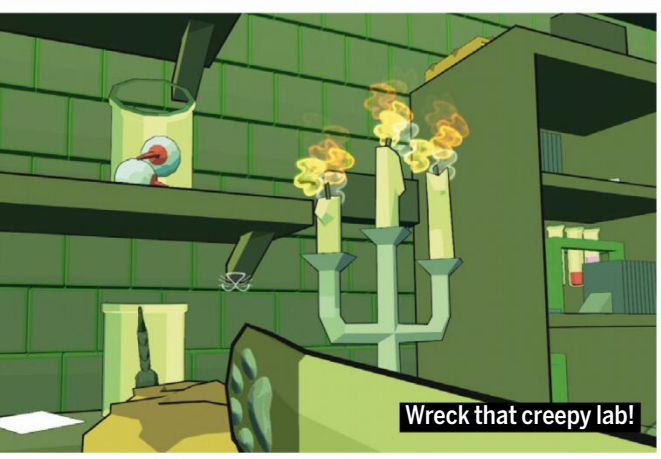
ALSO PLAYED
Astrologaster, Chuchel

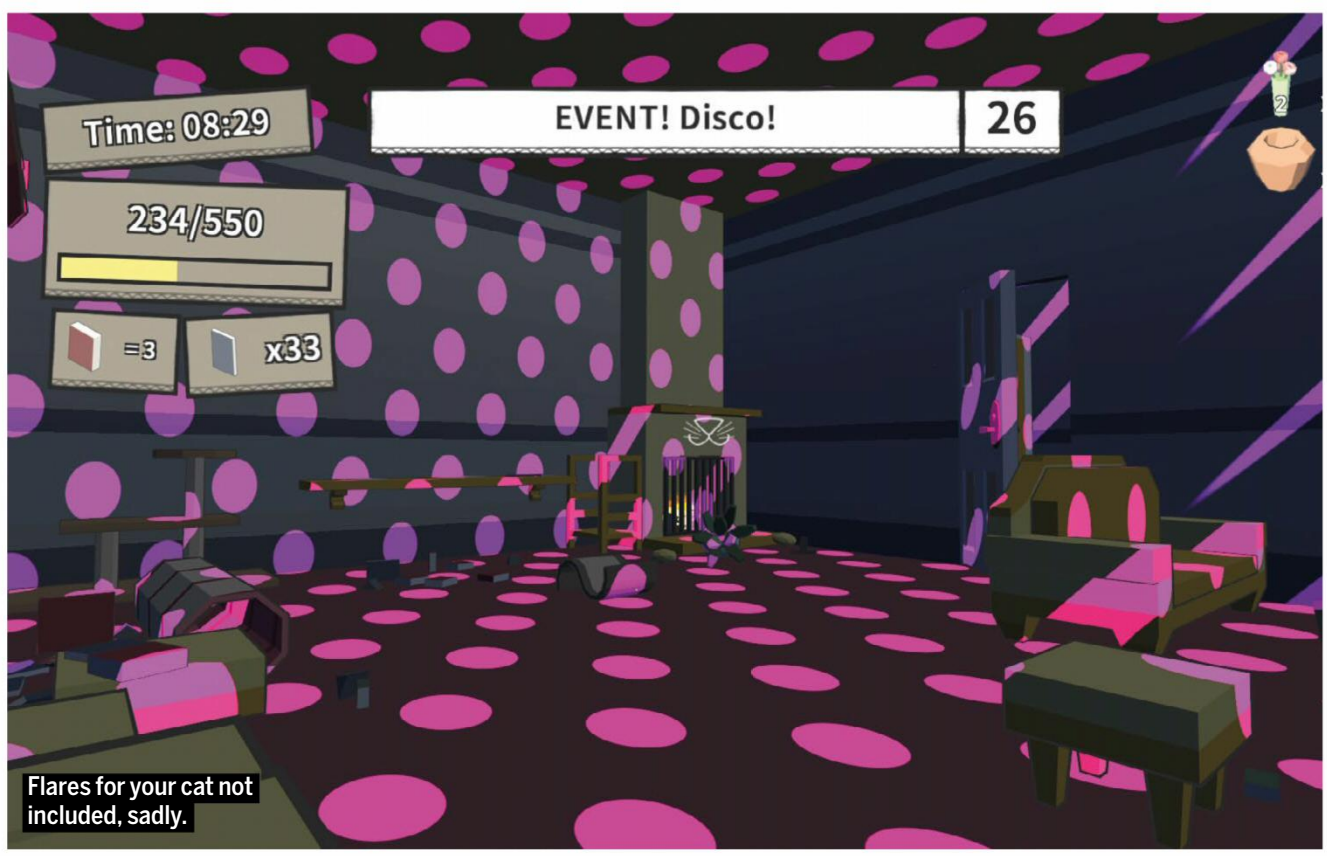
IT'S OBJECTIVE MODE THAT I FIND MYSELF COMING BACK TO AGAIN AND AGAIN

PAW CIRCULATION

Our family has a cat, but he's reached the age where he doesn't do much more than eat, sleep, and leave the house to (I assume) use public toilets. Perhaps I should encourage him to have a go, to relive his youth. Each playable cat is a kitten, hence the energy. Less realistic, but no less welcome, are the Events that will randomly kick in during play. Laser pointer dots to hunt, moon gravity to allow me to easily reach the tops of cupboards, a disco for some reason... all good stuff. I love the fact that there are powerups to find, too, buffing my speed, power, or jump.

Is this the only game out there with a collection of unlockable cat photos? It's probably the only one with a meow button. I love spamming the meow button. I imagine it's translating my own words as I sit on the sofa, gamepad in hand, tears of joy and anger streaming down my face. "Keep me in a bungalow, will you? That's animal abuse! I'll show you what happens when you keep me in a place like this! *This isn't a legitimate dwelling. ARRGH!*" I loved being a horrible goose, and I'm having great fun as a bastard cat. ■





MINECRAFT

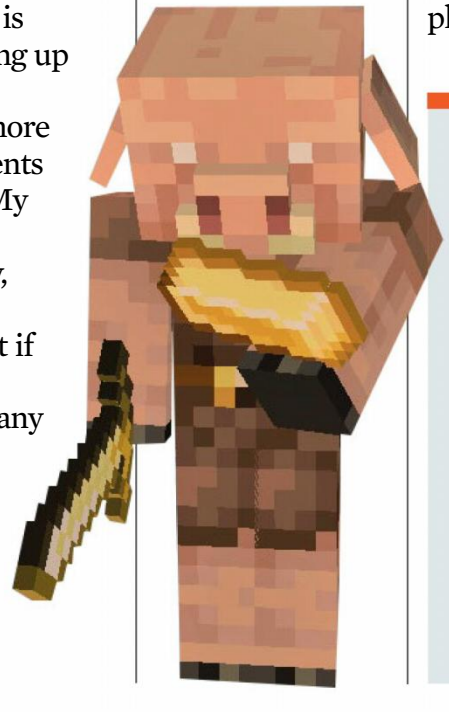
Hellish new features arrive. *By Rachel Watts*

The Nether has always been a part of *Minecraft* from the very beginning, with it's lava-filled caverns and vicious mobs gobbling up any brave souls who venture in. The recent 1.16 update gives *Minecraft*'s foreboding underbelly a hellish overhaul, adding four new biomes, lots of creepy mobs, and more blocks, including a new ore that is even stronger than diamond. Journeying to The Nether is far from a jolly jaunt, but these brand new additions make the risky delve into its fiery pits more rewarding than ever before.

Hopping through your obsidian Nether portal will now transport you to one of the four new underground biomes, and each one is more malevolent than the last. The old Nether is still around too but is now called The Nether Wastes and remains relatively unchanged – still lots of fire and deadly lava lakes to make you feel right at home.

The first biome I get randomly teleported to is the Crimson Forest, an area of dense blood-red trees. There's no sunlight in The Nether, so the plant life here takes on a more alien appearance. Long vines trail down from the cavern ceilings, fungi cover the floor, and tree bark is covered in a red weed crawling up their trunks like veins.

It's pretty intense, made more so by the Nether's new residents – the first being the Piglins. My first collision with these armoured pigs was not pretty, and I got my blocky butt thoroughly handed to me, but if you flash some gold it's a different story. Wear or hold any gold item and the pigs will leave you alone, and if you give your new tusked friend a gold ingot they'll stare at it for a moment before chucking an item from the Nether at you in return.



NEED TO KNOW

RELEASED
23/07/20

DEVELOPER
Mojang

PUBLISHER
In-house

LINK
minecraft.net

The second forest dweller is the Hoglin, a ferocious beast that is much more treacherous than the Piglin. Hoglins stick together in packs and have babies among them, which would almost be cute if they weren't so ferocious. In classic *Minecraft* style, both the Piglins and Hoglins have zombie counterparts, and if you see one I suggest the courageous act of running away. Run as fast as your blocky legs can go – these undead are not to be messed with.

The other biomes have fewer mobs and are more hotspots for material gathering. The Warped Forest is a shocking turquoise colour and a prime spot for Endermen, which is why few other mobs spawn there. The Soul Sand Valley looks like a large grotto and is a desolate biome but dangerous nonetheless. There's a new soul sand block that slows your movement, which is far from ideal if a skeleton mob decides to use you for target practice. The final biome, Basalt Delta, is a striking one built from basalt, blackstone rocks, and pools of lava. The story behind this place is it's the remnants of an ancient volcanic eruption. and you can totally see that in its rugged terrain and eerie ambience.

NETHERITE IS IN

One of the most exciting things about the Nether update is the introduction of a new gear set, and a material that is even stronger than diamond. Netherite has taken diamond's place as being the most durable material in the game. Be sure to stock up on gold and ancient debris so you can combine them, and you'll be able to upgrade all your tools. The purple glow of enchantments looks very cool against the black netherite.

There are plenty of new materials in the 1.16 update that provides a whole load of building potential in *Minecraft*. To name a few, there's the turquoise coloured warped wood set that goes perfectly with the soul fire and the crimson wood set that has a reddish hue and just oozes evil vibes.

HOGLINS STICK IN PACKS AND HAVE BABIES AMONG THEM

Blackstone is another exciting addition, finally giving builders a black block to work with – it'll look so cool for building stairs and walls. With the bonus of weeping and twisting vines, and hanging chains to add more flair to an evil lair.

The updates to *Minecraft*'s Nether make it an exciting time for players, and I can see builders going nuts with all the new evil-looking materials. No dark fortress will look the same ever again. ■

HIP TO BE SQUARE

Special blocks from the 1.16 update

RESPAWN ANCHOR
Set a spawn point in the Nether for if you wish to return. Quite handy really.

LODESTONE
A useful locational block that you lock your compass onto, so you can find your way around.

CRYING OBSIDIAN
A special material that can only be mined with a diamond pickaxe.

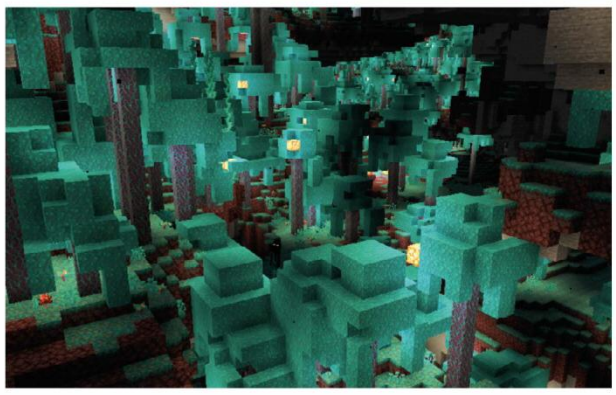
STRIDER
A peaceful mob in the Nether. If they leave the lava they start shivering. Aww, poor thing!

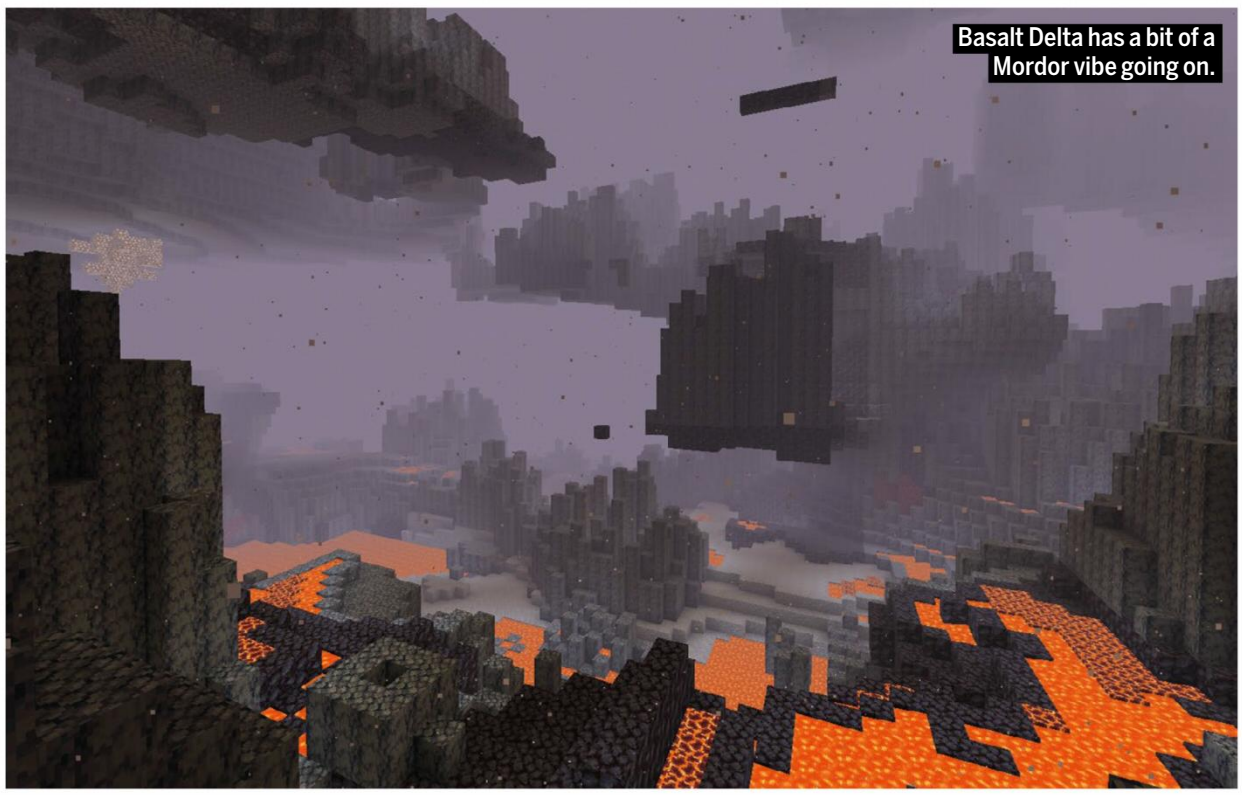
A cute Hoglin family. Thankfully they haven't noticed me yet.

Don't you know it's incredibly rude to stare.

These lil' dudes can stack on top of each other and it's adorable.

Soul Fire gives off blue flames which is super cool.




Basalt Delta has a bit of a Mordor vibe going on.

The grand staircase doesn't move, but it's still quite daunting.

WITCHCRAFT AND WIZARDRY

A fully-fledged wizarding RPG in an intricate, blocky Hogwarts. *By Lauren Morton*

I get sorted into Hufflepuff because of course I do. I'm 28 years old and playing a *Minecraft* mod based on a series of children's books that I loved way too much when I was an actual child so I guess I just exude Hufflepuff energy.

The sorting hat agrees, after peppering me with magazine-style personality quiz questions questions like "what do you most value?" (community) and "which would you rather be?" (trusted). "Hufflepuff!" the grouchy sorting hat yells. The grey scarf tucked into the school wizarding robes I bought in Diagon Alley magically turns yellow. Now that I'm sorted, I'm free to roam the unfathomably intricate rendition of Hogwarts. I immediately get just as lost in the wizarding school's blocky corridors as I typically do in a standard *Minecraft* mine shaft.

Witchcraft & Wizardry is a genuine RPG through and through. There are containers full of junk like spare parchment and vials, quests of varying importance, and NPCs that are happy to vomit lore at your feet. Before I even get to Hogwarts, one of my first available sidequests is to help Neville Longbottom find his toad Trevor somewhere on platform 9 & 3/4. There's just a bit of *Minecraft* parkour involved in fetching the wayward amphibian from the top of the Hogwarts Express.

Later on I help Draco Malfoy collect some potentially 'embarrassing' (read: illegal) items around his family's house, before which he's happy to give me his opinions on the Weasly family, and Arthur Weasly and the Ministry Of Magic's home inspections that could have led to the discovery of the Malfoy Manor's cryptic scrolls and cursed skulls. That's dealt with now. You're welcome, Draco.

After all that dallying about, it's time to attend a class or two. Mercifully, *Witchcraft & Wizardry* does include a helpful quest compass that points you towards your current objective. Without it I'd undoubtedly be stuck wandering the dungeons forever. My Maurader's Map can let me fast travel to any location I've visited before, but that doesn't help me arrive at Charms class the first time around, so I wander the castle chasing my yellow compass, trekking up the familiar grand staircase, winding down tight castle corridors, and picking up quests from my many fellow students who are loitering about the lively school.

When I finally arrive, Professor Flitwick teaches me the Lumos spell

Popped out of class for a butterbeer while I run Hermione's errands.

Apparently I'm allowed to wander in to Slytherin's common room.

After waking up on Privet Drive, the Knight Bus escorts me to Diagon Alley.

and sends me off into a dark maze to hunt down an array of collectible stars. It's an easy first task, finding my way with the help of maps drawn on chalkboards around the maze of bookshelves. My Defence Against The Dark Arts class about an hour later turns out to be more complex, with an obstacle and combat course that teaches me the Stupefy spell for attacking enemies.

THE COMBAT IS CONSTRAINED BY MINECRAFT'S OWN SIMPLE SLASH AND DASH SYSTEM

I jump through a set of spooky, cavernous rooms, hitting targets that open passageways and reveal platforms that I have to jump on before they retract. Other targets I have to hit in sequences. At the end I'm faced with a room of Boggarts to fight. In wizarding lore, they transform into your greatest fear. In this *Minecraft*ed world they appear as skeletons and spiders mostly.

SPELLING TESTS

The combat is constrained by *Minecraft*'s own simple slash and dash system. I can left click with my wand out to smack things with it or double-tap right click to use my equipped spell. I fire off a few Stupefy spells every couple seconds as I backpedal away from spiders and armoured skeletons. I sprint past a well of magic rejuvenation at the centre of the room to refill my magic meter after a few too many Stupefys. It's a repetitive dance, but *Minecraft* has never had particularly deft combat. I die several times before the room is cleared, but quickly respawn each time back in the action. No wonder Hogwarts doesn't have a physical education course if I'm doing all this jumping and sprinting in my lecture classes.

Eventually I'm off to Hogsmeade as a favour for Hermione Granger who, wouldn't you know it, is willing to teach me another Charm spell. Hanging up her House Elf activism posters all over the village quickly becomes priority number one. Like any good RPG, *Witchcraft and Wizardry* has thus far taunted me with the occasional locked door and a prompt telling me that the Alohamora spell can unlock it.

I suspect I'll find a chest full of items that I may or may not have a use for. But it could be a collectible wizard card or some other treat. So off I jaunt away from my main student duties in search of unexplored corridors and the siren song of loot and more.

If it weren't evident enough, the *Witchraft and Wizardry* map is a triumph just to look at. Hogwarts' towers soar above my render distance. Hogsmeade is a winter village tundra. Every room is meticulously decorated and cluttered with barrels and paintings and other odds and ends thanks to the custom texture pack that the map uses.

As if the map itself weren't impressive enough, the experience requires no actual mods at all. You download the map and resource packs either manually or with a handy installer, and you're done. It's a feat of *Minecraft* engineering.

Witchcraft and Wizardry is unabashed nostalgia. Everything from familiar names and faces to the soundtrack that's authentic enough to have been ripped from the movies are designed to make me feel ten years old again. It's executed with such precision that, heck, do we really need a real *Harry Potter* RPG? I'm just as happy in *Minecraft*.

MUSIC MAGIC *A stupefyingly good custom soundtrack*

We often appreciate the talent it takes to construct something visually impressive in *Minecraft*, which *Witchcraft and Wizardry* does. Just as important to the feel of this adventure, though, is the soundtrack composed by Collin Brefka. More than once the songs made me pause, wondering if they were lifted directly from the Harry Potter movie soundtracks. They may share some elements: bells and choirs and oboes – but are made just for the *Minecraft* version of Hogwarts. Brefka catches the feel of the movie soundtracks perfectly, making me feel like I've heard his versions before.

GRADUATE PERSONA 4 GOLDEN

Juggle school work with dungeon crawling in Atlus' enthralling JRPG. *By Harry Shepherd*

NEED TO KNOW

DIFFICULTY
Easy

TIME
70 Hours

VITAL LINKS
Performance review:
bit.ly/2YnmNLN
Quiz answers list:
bit.ly/37P1vJQ
Fusion guide:
bit.ly/2NtKpYx

FRIEND BENEFITS

1 *Persona 4 Golden* is as much about hanging out with your mates as it is fighting in dungeons, so don't neglect them. Strengthen social links by going to the cinema and eating out with friends to expand your options in battle.

BEST PAL

2 As your social circle expands, don't forget about Marie. One of Igor's assistants, Marie was added specially for the game's *Golden* edition, and if you ignore her, you could miss out on a bonus dungeon and some cool story moments.

BUSY SCHEDULE

3 *Persona 4 Golden* is massive, and the vast amount of activities on offer can sometimes feel like a bit of a slog. Soak in the atmosphere of Inaba at your own pace and take advantage of New Game+ to hoover up anything you miss.

DILIGENT DUNGEONEERING

4 It's always worth getting ahead of your deadlines in *Persona 4 Golden*. Taking the time to prepare if you need it, but the sooner you get your combat commitments resolved the freer your schedule is to work on those important social links.

JOBS WORTH

5 Here I'll be echoing my mum: "Get a job!" On top of your investigation and your studies, taking on a trade will provide new social links and improve personality traits, as well as giving you extra cash.

SECOND RUN

6 All dungeons can be completed twice: do that to fight a new miniboss and gain extra rewards. Talk to the character associated with the dungeon once you've moved on to the following month to double dip.

GETTING PERSONAL

7 Don't get too attached to personas, the magical manifestations of your character's personality that give the game its name. Instead, fuse them so you have a persona for as many situations as possible to increase your party's power.

SOCIAL BUTTERFLY *Invest in these traits to maximise your popularity*

BALANCING ACT

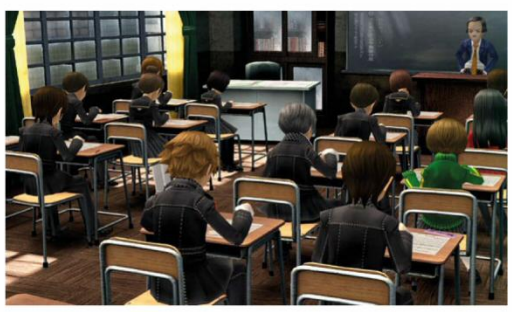
8 While honing your combat craft by raiding dungeons is important, also spend plenty of time working on your non-violent attributes. Each of your five skills have various benefits, so it pays to put your weapon down once in a while.

STEAK DINNER

9 Activities are restricted on rainy days, but one you can do raises your three most important traits, Knowledge, Understanding and Courage: Aiya Diner's Mega Beef Bowl Challenge. It costs a dear 3,000 yen, but it's well worth it.

EASY DOES IT

10 Feel free to experiment with *P4G*'s difficulty settings. Tackling tougher difficulty levels will take plenty of XP grinding and long stretches in the TV World, so go easy if you want to spend more time in the peaceful real-world realm of Inaba.



BOOK LEARNING

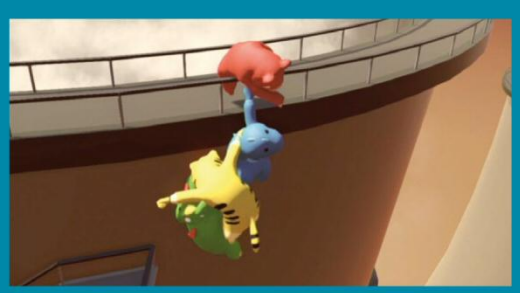
11 Doing well in your studies improves your popularity – if only real life was like that. Getting your quiz answers correct gives you an all-important social stat boost, so refer to our test solutions guide in the Vital Links section on the previous page.

FESTIVE FUN

12 The quickest way to see each ending is to make a second save before December, as many crucial story decisions are made then. You should also wait until December 22 to do the dungeon, so you don't miss the Xmas Eve event.

RAGDOLL SLAPSTICK

The endless joys of physics-al comedy. *By Alex Spencer*



RIGHT: Octodad has one of the all-time great slapstick premises. He's an octopus in a suit, and nobody suspects a thing.

My fondest gaming memory: half a dozen boys squeezed tight into a uni halls bedroom, gathered around a monitor watching two boxy men stumble and push each other over, in endless loops. We're losing our minds, laughing so hard that we gather a crowd from the flats above and below.

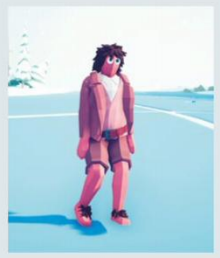
The game is *Sumotori Dreams*, a free .exe I'd downloaded off the internet on a whim. Imagine a *Virtua Fighter* game set outside a kebab shop – a face-off between two cubist combatants with incredibly poor control over their bodies, so that every movement risks sending them tumbling to the ground. These fighters, they get knocked down, but they get up again. Or at least, they try to. Just standing up is a challenge, and that's before you factor in the slight curvature of the ring edge and the box man also trying to right himself a few inches away. It's almost inevitable that the pair will collide, tumbling to the ground entangled in each other's blocky limbs like lovers.

That perfect half-hour was well over a decade ago now, but on its strength alone, *Sumotori Dreams* would probably still rank in my all-time top 100 games. It opened a door, one that led me to a world of slapstick games. I can't be sure that *Sumotori* was the first, historically speaking, but that combination of ragdoll physics and unreliable controls spawned an entire genre, encompassing everything from *QWOP* to *Surgeon Simulator*, *Gang Beasts* to *Overcooked*.

My current obsession is *Totally Accurate Battle Simulator (TABS)*, a game I suspect would cause my teenage self's eyes to widen like that one exceedingly horny wolf from the old Droopy cartoons. A disjointed wrestling match between two drunkenly-animated fighters? Yeah, that's alright, I guess – but how about dozens of them. Hundreds of them. As many googly-eyed warriors as my CPU will allow, all rushing to the centre of the battlefield to clash in thick clouds of primary-coloured flesh. The advance of technology is a beautiful thing, sometimes.

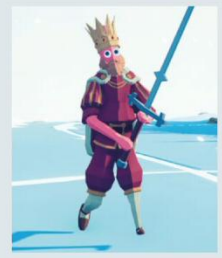
KEEPING TABS *Totally Accurate Slapstick Simulator*

PROTECTOR
All the elegance of smashing someone with a block of Styrofoam.



HALFLING
Frodo spliced with salmon DNA – leaps headlong at enemies.

WHEELBARROW
A one-wheeled apple-launching terror steered by... is that Bob Ross?



THE KING
Pretty sure he's actually three halflings on each other's shoulders.

BEFORE A FALL

Of course, it doesn't have to be a dedicated comedy game. In fact, you often get better laughs if it's not. Any game that uses the Euphoria engine is a good candidate here. Crashing into a lamppost in *GTA*, launching your body over the handlebars or through the windscreen. A Stormtrooper desperately clinging to boxes as you pull them leg-first into the sky in *The Force Unleashed*. Anything involving horses in *Red Dead Redemption 2*.

YOU NEVER KNOW WHEN A GRENADE IS GOING TO LODGE SOMEONE IN THE RAFTERS

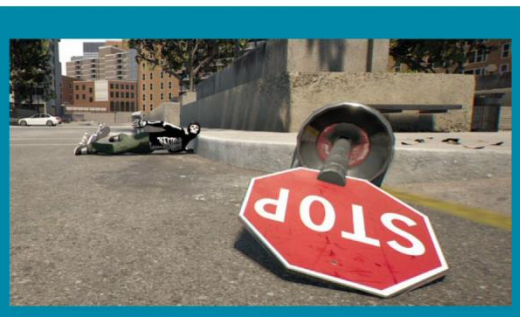
In these games, not every death or collision is a slapstick masterpiece. Which just means that, when they are, it takes you by surprise – always one of comedy's sharpest weapons. You never quite know when a grenade is going to lodge someone in the rafters, or when a sleep dart will send your target flopping over a railing, a perfectly planned non-lethal playthrough ruined. Like a joke with a hoary set-up taking a sudden twist into surrealism, unpredictability is inherently funny – and game physics is inherently unpredictable, especially when you throw AI into the mix.

So maybe that's why, decades on, something so simple can still have me bellowing at the screen like some gouty, turkey-leg-clutching king. Maybe ragdoll physics works because it's an acknowledgement of the fundamental random meaninglessness of the universe and, well, you've got to laugh, haven't you?

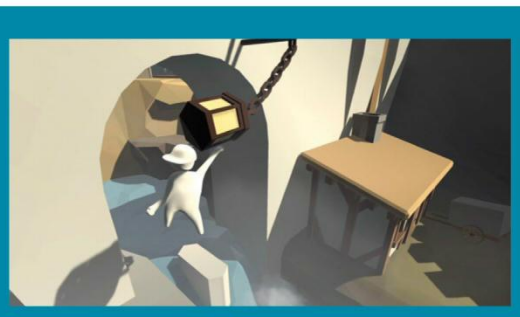
Or maybe it's because I can relate to the tumbling body. Clumsiness is my standard mode of being. (I write this with a pretty large bruise on my head, sustained while skipping back from a toilet intermission during Hamilton, getting overexcited at one of the musical numbers, and smashing my skull into a door frame.) But we've all had those moments where our legs go from under us, right? I think of the way *GTA IV* links this ragdoll loss of control with drunkenness – put a couple of shots inside Niko, and suddenly his greatest enemy isn't the Faustin Mafiya or police, it's a long flight of stairs – and I can't help but nod in recognition.

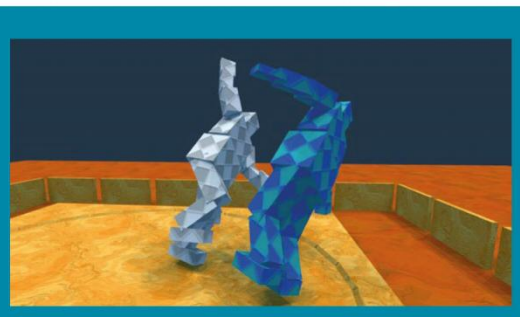
We're all of us made of unreliable meat, and sometimes it's fun to play that up. Games often give us total streamlined control over movement, and undercutting that exposes the ridiculousness of it. Maybe that's what I'm really laughing at.

Or maybe it's just funny to watch people fall over, and it always will be, no matter how old I get. ■



RIGHT: The default body shape for comedy physics protagonists, as for game journalists, is 'jelly baby'.





Haggling is a careful exercise in not pissing off your customers.

RECETTEAR: AN ITEM SHOP'S TALE

A humble precursor to the rise of Japanese PC games. *By Steven Messner*

It's undoubtedly right to assume that *Recettear: An Item Shop's Tale* is one of the more important indie games that you've never have heard of. You see, it was the first Japanese PC game ever released on Steam, and its success helped kickstart a chain of events – including the release of *Dark Souls*' own hugely popular PC port – that proved there was an enormous demand for Japanese games on PC and not just consoles. *Recettear*'s developers thought it'd only sell 10,000 copies, but instead it sold over 500,000.

You wouldn't know it by playing *Recettear* today, though. Ten years is a long time, especially for an indie game, and *Recettear*'s adorable charm and engrossing loop of dungeon delving and bartering are now buried under some archaic limitations. For example, *Recettear* is only playable in one of four resolutions, and none of them are even close to being HD. There's no mouse support whatsoever, you can't adjust a lot of basic settings in the game (you have to launch a separate tool), and it defaults to using a bunch of nonsensical keybinds that will take a while to get used to. Ironically, playing *Recettear* now feels a lot like emulating a console game. I didn't mind it back in 2010 when I first beat it, and I don't mind it now. That's because the charming *Recettear* is an easy game to love.

SELLING OUT

Though it clearly borrows from PlayStation-era JRPG classics, *Recettear* isn't bogged down with a convoluted story. You play a young girl named Recette who runs an item shop alongside her friend-slash-loan-shark Tear, a fairy to whom Recette's father owes an enormous sum of money. To pay down that debt, Tear and Recette must team up and turn their plain, ugly item shop into a bustling business.

In 2010, this idea felt nothing short of genius to me. For years I had always played the hero and never given a second thought to the non-playable characters I found in every village and town. But *Recettear*

NEED TO KNOW

RELEASED September 10, 2010	**DEVELOPER** EasyGameStation
PUBLISHER Carpe Fulgur	**LINK** bit.ly/30LzS36

Combat is so boring it ends up being a little annoying.

Different heroes have different abilities and combat styles.

is a game about all those item shop owners no one cares about. Today, that idea doesn't feel nearly as brilliant – partly due to so many other games having explored it – because *Recettear* also can't completely escape from the type of games it's trying to subvert.

Soon after running the shop for a few days, you unlock the ability to hire warriors to comb through dungeons and catacombs for treasure that you can sell. During these moments, which frequently take up half an in-game day, *Recettear* becomes a boring, basic dungeon crawler. It kinda sucks.

I didn't mind it as much in 2010, but I also think my expectations were a lot lower. But I've played dozens of dungeon crawlers since then (many of which were excellent), and *Recettear*'s stilted combat and basic enemies just aren't exciting enough to warrant the time it takes to kill them. I'd much rather be back at the shop, haggling over the price of a wooden shield with a customer.

Even so, I'm surprised by how easily I slipped back into that routine that once kept me up at night for days on end when I first beat *Recettear*. Days are divided into four 'slices' and different activities, like opening the shop or visiting the nearby Guild Hall for supplies, eat up a slice. Juggling these different activities is a lot of fun and it's easy to say 'just one more day' before realising three or more hours have slipped by unexpectedly.

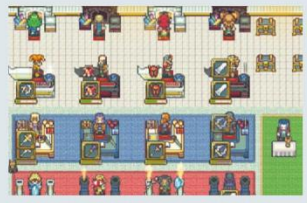
Using the time you do have efficiently is important, though. Every few weeks Recette has to pay down a chunk of her father's debt to Tear, which creates a surprising amount of tension. Anyone who has had to scrape together money to pay rent will know that feeling – though *Recettear* covers up its depressing capitalist undertones with an *Animal Crossing* level of charm.

Even though much of *Recettear* hasn't aged gracefully, I'm surprised by how much I still enjoy it. It's a testament to how clever the core idea is, even if I could do without the mediocre dungeon crawling. It makes me sad that there was never a real sequel, because *Recettear* is quietly one of the more important Japanese games on PC. ■

SHOPAHOLICS

Three games to try if you like the idea of running an item shop

MOONLIGHTER
A spiritual successor to *Recettear* in many ways, but with gorgeous pixel art and *Zelda*-style combat.



WEAPON SHOP FANTASY
Similar to *Recettear*, but with more of an emphasis on producing weapons.

HOLY POTATOES! A WEAPON SHOP?!
Another item shop sim, except you hire potatoes to do all the work for you.

MUST PLAY

A PERSONAL LIST OF THE BEST GAMES YOU CAN PLAY RIGHT NOW

by Andy Kelly

ANDY KELLY

If a game's got detectives in it, or is set in space, I'll probably like it. Now I'm just waiting on someone to make a game about a space detective.

SHERLOCK HOLMES: CRIMES AND PUNISHMENTS

frogwares.com

→ Become Holmes and investigate a series of mysteries, including the classic 'murder that takes place in a room locked from the inside'. This is the best detective game on PC because it's possible to draw the wrong conclusions from the evidence and accuse an innocent person.

MAX PAYNE 3

maxpayne3.com

→ A very different experience from the weirder, cooler Remedy games, but Rockstar's take on *Max Payne* is one of the most stylished, lavishly produced third-person shooters on PC. Set in São Paulo, Max shoots his way through rooftop nightclubs and gang-infested favelas as he embarks on a quest for vengeance.

SLEEPING DOGS

sleepingdogs.net

→ Set in a gorgeous recreation of Hong Kong, this open world epic has you playing as an undercover cop embedded with the Triads. Missions are split between criminal activities and law enforcement, and the constant tension of being discovered makes for a dramatic story. It's not quite *GTA*, but it has its own charms.

ALIEN: ISOLATION

alienisolation.com

→ Still one of the best horror AND stealth games money can buy on PC. Your relentless alien stalker is dynamic, intelligent and unpredictable, making it a formidable foe worthy of H.R. Giger's creepy penis monster. If you prefer the 1979 film's slow-burning horror to the sequel's action, you'll love this.

THE LONG DARK

intothelongdark.com

→ A survival game that stands out from a crowded, mostly rubbish pack thanks to its realism, atmosphere and hand-painted art style. Stranded in a freezing Canadian wilderness, you have to use your environment to survive. There's a story, which has its moments, but the open-ended sandbox much is better.

ELSE HEART.BREAK()

elseheartbreak.com

→ In a digitised world, anything can be hacked. That's the imaginative premise of *Else Heart.Break()*, a unique game about love, freedom, and cyber-crime. A tool called a Modifier can be used to hack objects and change how they behave, and hero Sebastian uses his coding skills to join a gang of hacktivists.

MGS V: GROUND ZEROES

konami.com/mg

→ Infiltrate a military prison camp and rescue hostages in this deep prologue to *Metal Gear Solid V.* Sneak your way through with tranq darts or wipe out all of the guards with a sniper rifle. You might think this is a glorified demo, but the 30+ hours I have logged on Steam would suggest otherwise.

DUSKERS

misfits-attic.com

→ With an aesthetic straight out of a '70s sci-fi, this game about scavenging derelict ships with drones features tense horror, deep strategy, and a genuinely unnerving atmosphere. You don't see much in *Duskers* other than a digitised display, but that's what makes its monster encounters so scary.

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ISSN: 1351-3540

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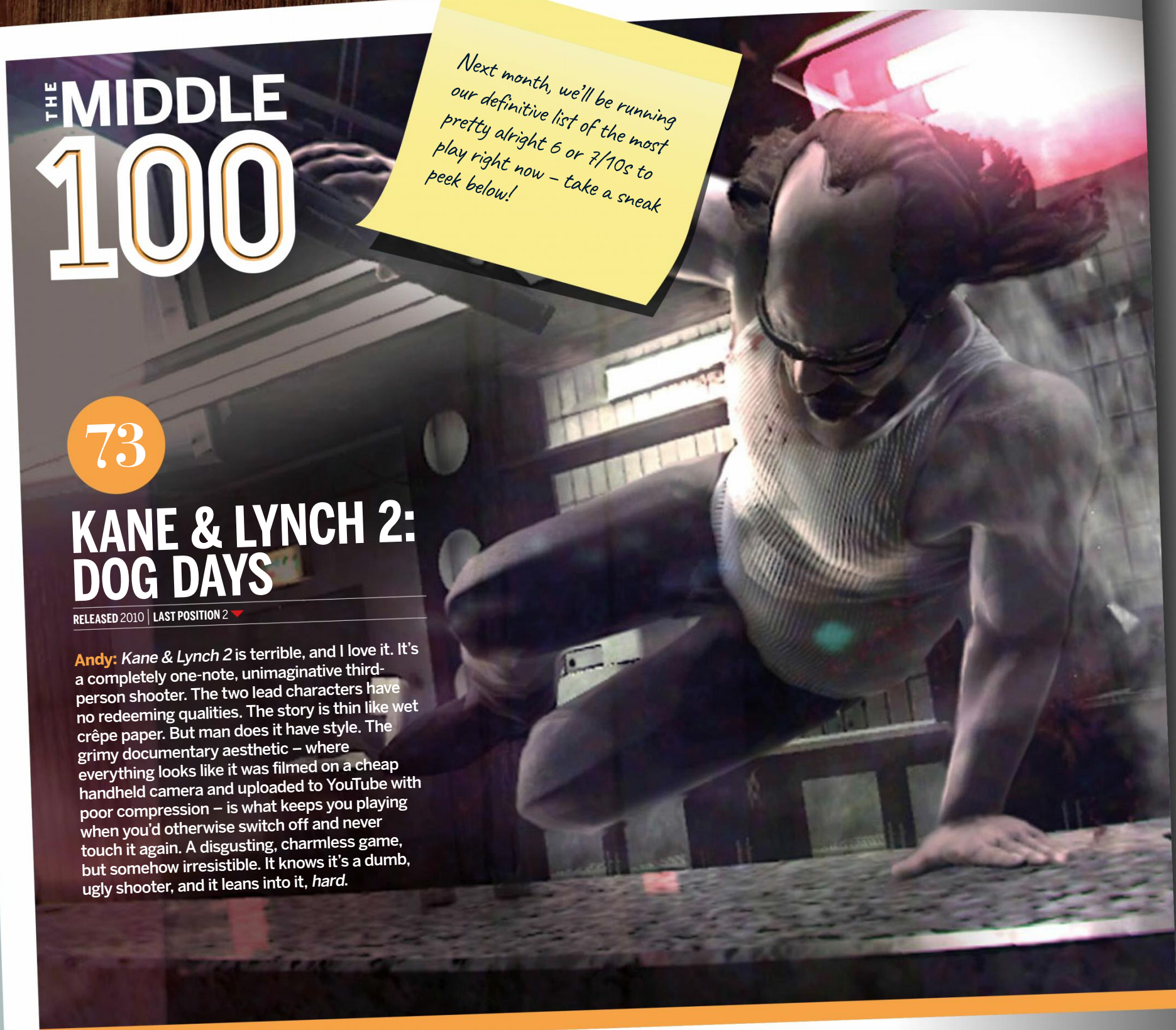
THE MIDDLE 100

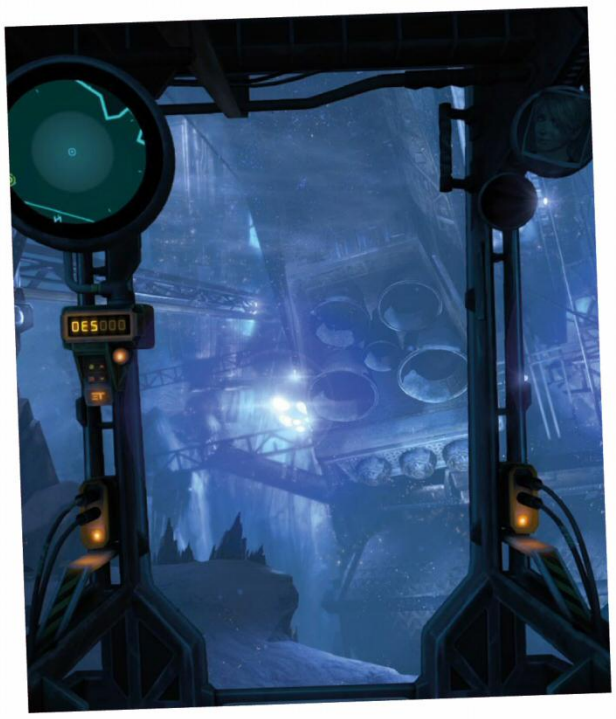
Next month, we'll be running our definitive list of the most pretty alright 6 or 7/10s to play right now – take a sneak peek below!



73 KANE & LYNCH 2: DOG DAYS

RELEASED 2010 | **LAST POSITION** 2

Andy: *Kane & Lynch 2* is terrible, and I love it. It's a completely one-note, unimaginative third-person shooter. The two lead characters have no redeeming qualities. The story is thin like wet crêpe paper. But man does it have style. The grimy documentary aesthetic – where everything looks like it was filmed on a cheap handheld camera and uploaded to YouTube with poor compression – is what keeps you playing when you'd otherwise switch off and never touch it again. A disgusting, charmless game, but somehow irresistible. It knows it's a dumb, ugly shooter, and it leans into it, *hard*.



72 LOST PLANET 3

RELEASED 2013 | **LAST POSITION** New

Robin: The third game in a pretty mediocre series, this sequel made bold changes to the formula, and the results were... well, it wasn't spectacular, but it was pretty cool, I think. No pun intended. You play a blue collar worker taking life day-by-day on a frozen hell planet. Most of the game just consists of stomping slowly through blizzards in a big clunky mech, listening to country music. But there's just something oddly compelling about the atmosphere that creates – it's like *Euro Truck Simulator* in space. Which I guess just makes it like a less effective version of Alien. But I still like it, I think. The main guy looks a lot like Adrien Brody with a beard – is that something?

71 WARHAMMER 40,000: SPACE MARINE

RELEASED 2011 | **LAST POSITION** 100 ▲

Tom: *Space Marine* deserves a place in your game library, filed under 'endlessly satisfying Ork blitzing sim'. It's dated a bit, visually, but it still captures the Space Marine fantasy with its roaring chainsword and a lightning hammer. The environments are a bit boring, but focus instead on the gangly Ork hordes and your Space Marine's earth-shaking stompy running animations. Prepare to be moderately entertained.

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